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TRAP NESTS.

An Experiment to Test the Practicability and Comparative Efficiency of Various Contrivances for Ascertaining the Egg Laying Records of Fowls.



THE TRAP nest has been in use to a limited extent for at least thirty years, but it is only within the last three years that it has come into general notice through the claims

of several inventors of devices to determine the number of eggs laid by individual fowls.

Some of the objects have been to save the eggs of individuals from special mating pens, to select the best layers, to detect the non-laying fowls and those that lay but few eggs, and to ascertain the characteristics of the eggs from certain fowls.

The trap nest is certainly valuable, especially in line breeding, to the fancier having a limited number of choice fowls from which he wishes to establish a pedigree strain. It is also of use to the experimenter in breeding when he wants to determine the results of certain crosses or matings.

It is a favorite device with the man who has a desire to build up a strain of phenomenal layers, even if by so doing he weakens the stock. Others are using the nests to substantiate their claims for the wonderful egg producing qualities of their hens by advertising their actual laying records.

Trap nests may be divided into two classes, single and double compartment nests. The last named may work well, but their use is rarely advisable. They are usually hard to clean, and, being bulky, take up valuable space. The claim for the double compartment nest is that it allows the hen to leave the nesting space after laying, thus preventing her breaking or soiling the egg by trying to get out. The hen should not, however, be confined in so small a space for so long a time that she worries or her laying may be impaired. She should be released as soon after laying as possible, which is as easily done from the single as from the double compartment nest. The single compartment nests are generally preferable. They are simpler, more easily cleaned, and require no more room than an ordinary nest.

A trap nest should ordinarily be no larger than a common nest, and easily cleaned. It should be simple in construction, and so well made that it will not get out of order. It should admit but one hen at a time, and after she is in should prevent her exit or the entrance of others until the first hen is released and the trap again set. It should also be attractive to the hens, or they will lay outside rather than enter the nest. It should be adaptable to all classes and sizes of fowls. It will be seen by the data to follow that not a single nest has met all of the requirements as above stated, though a few have proved to be far superior to the others. The openings in some were so large that two hens have been known to enter at one time. Others failed to hold the hen, or admitted other hens because not provided with a latch to the door, or when so provided it failed to work. Defective operation of others was due to their flimsy construction, and to the fact that the nesting material often interfered with their mechanism. This interference from the nesting

material was so great in some instances that it was necessary to re-adjust the nest nearly every day.

With a few exceptions the devices were more adaptable to the American and Asiatic than to the Mediterranean breeds, as the former are more quiet and easier to handle than the latter. A few interesting facts were

at times. The average, however, was never more than one egg a day, as after laying twice in one day the hen would very likely miss the next day or day following. Sometimes the male bird developed the trick of catching himself in the nest, for no apparent reason but his own enjoyment.

In the following record of the different trap nests in use during the experiment it will be noted that reference is made to the number and variety of fowls in the pen; the total number of eggs laid during the trial; the number of eggs laid outside the nests; and the per cent of the total number of eggs laid credited to individual hens by the proper working of the nests. When two hens were found trapped in a nest with one or more eggs, or when two eggs were found with one hen, it

also made to the cause of other failures, the ease with which the hen was released, the cleaning of the nest, and the interference, if any, from the nesting material.

1. KNOWLES' NEST.—IN USE FROM MARCH 1 TO JULY 1, 1900.

Number of females in pen (one never laid, and was killed May 4th),	2
Variety—Black Minorca.	
Total number of eggs laid,	57
Nest operated,	57 times.
Number of failures to operate,	0
Eggs laid outside of nest,	0
Per cent of total number of eggs obtained from individual hens by use of nest,	100
That the nest might have failed to operate	



WHITE LEGHORNS.

brought out by the use of the trap nests regarding the peculiarities of certain hens, among them that a number laid two eggs a day

could not be told which hen laid the egg, and the record of the nest was checked as "failed to operate" once for each egg. Reference is

effectively was proved by the male bird often entering the nest while a hen was laying. The hinges being of leather allowed the door to sag

sufficiently so that it did not latch, nor was the door heavy enough had the hinges been better. Nest built in three sections of two compartments, each section complete in itself, one above the other. Hen released quite easily. Nest cleaned easily if only one or two sections are used. Lower one practically useless, as being on the ground it is hard to tend to. Nesting material interferes more or less with the trip. Can be used for heavy or light hens.

2. "CHEAP JOHN" NEST.—USED FROM MARCH 1 TO JULY 1.

Number of females in pen,	4
Variety—Pea Comb R. I. Red.	
Total number of eggs laid,	100
Nest operated,	15 times.
Failed to operate,	5 times.
Number of eggs laid outside of nest,	80
Per cent of total number of eggs obtained from individuals,	15

Failed to operate because of two hens entering at once. Hens laid outside so much because nest was continually tripped by hen or cock lighting on top of nest, causing door to drop. Nest of two compartments easily set, but not very readily cleaned. No interference from nesting material. Releasing hen easy. Adapted to all varieties.

3. "PERFECTION" NEST.—IN USE FROM MARCH 1 TO JULY 1.

Number of females in pen,	4
Variety—Buff Plymouth Rock, until May 1. Six Light Brahmas from May 1 to July 1.	
Total number of eggs laid,	104
Nest operated,	46 times.
Failed to operate,	13 times.
Number of eggs laid outside of nest,	45
Per cent of total number of eggs obtained from individuals,	44+

Failures caused by nesting material getting under board on which hen steps in order to trip the door. This prevented its working, and allowed the hen to escape or another to enter. Nest of two compartments not easily cleaned, and did not seem to attract the Light Brahmas, the opening being too small for them. Hen easily released, and nest easily set. Best adapted to light and medium sized hens, except that the lighter ones are more liable to scratch dirt under the trip board.

4. "HAWKEYE" NEST.—IN USE FROM MARCH 1 TO JULY 1.

Number of females in pen,	6
Variety—Barred Plymouth Rock.	
Total number of eggs laid,	158
Nest operated,	144 times.
Failed to operate,	5 times.
Number of eggs laid outside,	9
Per cent of total number of eggs obtained from individuals,	91

Failed to operate because wires which support the door became bent so that when hen stepped on floor, which is suspended and acts as a trip, the wires were not pulled from under the door, and hen was not trapped. Nest easily set and cleaned. Single compartment, and no interference from nesting material. Hen released easily. Adapted to all breeds.

5. "RELIABLE" NEST.—IN USE FROM MARCH 1 TO JULY 1.

Number of females in pen,	6
Variety—Rose Comb Brown Leghorn.	
Total number of eggs laid,	248
Nest operated,	73 times.
Failed to operate,	152 times.
Eggs laid outside of nest,	18
Per cent of total number of eggs obtained from individuals,	29

Failures caused (1) by nesting material not allowing door to close; (2) when door did close it did not latch, permitting another hen to enter. Nest of two compartments constructed of rough material, making it work hard. Not easily cleaned or set. Hen hard to release. Adapted to large or medium hens.

6. "EUREKA" NEST.—IN USE FROM MARCH 1 TO JULY 1.

Number of females in pen,	6
Variety—White Leghorn.	
Total number of eggs laid,	176
Nest operated,	128 times.
Failed to operate,	46 times.
Number of eggs laid outside of nest,	2
Per cent of total number of eggs obtained from individuals,	73

Cause of failure to operate: doors which are hung from the top inside do not latch, allowing other hens to enter. Nest of two compartments, and built in pairs side by side. Single lid to the two front, and same to the two rear compartments, making it hard to release hens, provided there was a hen in each compartment under one lid, as was often the case. One was likely to get away while the other was being taken out. Easily cleaned, having no bottom. Always set, doors hanging like curtains. Adapted to all breeds.

7. "SUCCESSFUL" NEST.—IN USE FROM MARCH 1 TO JULY 1.

Number of females in pen,	7
Variety—Single Comb Brown Leghorn.	
Total number of eggs laid,	199
Nest operated,	102 times.
Failed to operate,	40 times.
Number of eggs laid outside of nest,	57
Per cent of total number of eggs obtained from individuals,	51

Nest failed to operate (1) because of nesting material getting under rope on which hen must sit or step in order to trip nest; (2) by hen stepping over rope. Hen released easily. Nest of one compartment easily set. Having no bottom it was cleaned readily. Adapted to large hens, as they are more sure to sit on rope.

8. "BEAT 'EM ALL" NEST.—IN USE FROM MARCH 1 TO APRIL 12.

Number of females in pen,	6
Variety—Black Leghorn.	
Total number of eggs laid,	55
Nest operated,	15 times.
Failed to operate,	35 times.
Eggs laid outside,	5
Per cent of total number of eggs obtained from individuals,	27

Failures caused (1) by hen passing under trip, which is suspended from above, without touching it; (2) hen was able to get her head under door after it had fallen, and by raising it freed herself. Hen released easily. A nest with no bottom, hence easy to clean. Set readily. Of two compartments, but smaller than ordinary. No interference from nesting material. Adapted to medium and large hens.

9. WILLETT'S NEST.—IN USE FROM MARCH 1 TO JULY 1.

Number of females in pen,	2
Variety—Buff Leghorn.	
Total number of eggs laid,	79
Nest operated,	72 times.
Failed to operate,	7 times.
Eggs laid outside of nest,	0
Per cent of total number of eggs obtained from individuals,	90

Cause of failure to operate: two hens entering nest simultaneously. Releasing hen easy. Nest hard to clean. No interference from nesting material. Nest of two compartments. The largest of any used during the trial. Undesirable for this reason. Principle good; and if built without rear compartment, which is unnecessary, it would be more practical. Adapted to heavy and light varieties.

10. "UTILITY" NEST.—IN USE FROM MARCH 1 TO JULY 1.

Number of females in pen,	4
Variety—White Wyandotte.	
Total number of eggs laid,	139
Nest operated,	50 times.
Failed to operate,	87 times.
Number of eggs laid outside of nest,	2
Per cent of total number of eggs obtained from individuals,	36

Failed to operate because (1) the doors, which were not provided with a latch, hinged on the inside and swung outward, allowing another hen to enter; (2) hinges made of leather, the doors did not always close together, and hen inside was able to escape. Hen easily released. Nest hard to clean, but set readily. No interference from nesting material. Can be used for heavy or light varieties.

11. RECORD NEST.—IN USE FROM MARCH 1 TO JULY 1.

Number of females in pen,	5
Variety—Buff Wyandotte.	
Total number of eggs laid,	124
Nest operated,	102 times.
Failed to operate,	6 times.
Eggs laid outside,	16
Per cent of total number of eggs obtained from individuals,	82

Cause of failures: door, which slides in grooves in front, was pulled up too high, and did not drop when hen entered. As there was no guard to door, nest was often sprung by hens lighting on top. Hen released fairly easily. Nest cleaned and set readily. No interference from nesting material, the trip platform being guarded by low board in front of nest. Adapted to all breeds. Probably the best of the two compartment kind of nests.

12. HOBART NEST.—IN USE FROM JANUARY 1 TO JULY 1.

Number of females in pen,	2
Variety—Colored Dorking.	
Total number of eggs laid,	57
Nest operated,	33 times.
Failed to operate,	20 times.
Number of eggs laid outside,	4
Per cent of total number of eggs obtained from individuals,	58

Failure to operate caused by dirt collecting under platform in bottom of nest on which hen jumps in order to trip door, thus failing to trap herself, and allowing another to enter or herself to leave after laying. A heavy weight used in rear of nest outside to hold set in place, and the catch being of string and light wood, caused a good deal of trouble by string and wooden pieces often breaking, and by weight being knocked off by attendant, unavoidably, unless excessive care was used. Hen easily released. Nest hard to set, but cleaned quite easily. Single compartment, and adapted more to heavy or medium weight hens than to the light ones.

13. "CUCKOO" NEST.—IN USE FROM MARCH 1 TO JULY 1.

Number of females in pen,	5
Variety—Pea Comb Rhode Island Red.	
Total number of eggs laid,	109
Nest operated,	67 times.
Failed to operate,	29 times.
Number of eggs laid outside,	13
Per cent of total number of eggs obtained from individuals,	61

Causes of failure to operate: doors (two), which are hinged at sides and swing towards center, not latching, allowing other hens to enter. Hen easily released. Nest cleaned and set easily. Small chance for interference from nesting material. Nest of one compartment, but with a division in floor space to keep nesting material in place. Can be used for heavy or light hens.

14. MAINE NEST.—IN USE FROM MARCH 1 TO JULY 1.

Number of females in pen,	2
Variety—White Wyandotte.	
Total number of eggs laid,	70
Nest operated,	59 times.
Failed to operate,	6 times.
Number of eggs laid outside,	5
Per cent of total number of eggs obtained from individuals,	84

Causes of failure to operate: (1) door, which swings down from inside, did not always latch, allowing another hen to enter, but hen inside could not get out except just as other hen was entering; (2) nest being of two compartments, hen sometimes laid in outer one, and as it was necessary for her to enter rear compartment in order to trap herself, she failed to be caught. Hen released easily unless she went in forward compartment. Nest hard to set and clean. No interference from nesting material. Adapted to heavy or light breeds.

15. "PROGRESS" NEST.—IN USE FROM MARCH 1 TO JULY 6.

Number of females in pen,	5
Variety—Buff Indian Game.	
Total number of eggs laid,	112
Nest operated,	90 times.
Failed to operate,	5 times.
Number of eggs laid outside of nest,	17
Per cent of total number of eggs obtained from individuals,	80

Cause of failure to operate: door, which flies up, did not latch at times, allowing hen to escape, or hen may have stepped over trip. Hen released readily, and nest set and cleaned easily. No interference from nesting material. Nest of one compartment, and adapted to heavy or light breeds.

16. "BUCKEYE" NEST.—IN USE FROM MARCH 1 TO JULY 1.

Number of females in pen,	3
Variety—White Plymouth Rock.	

Total number of eggs laid,	147
Nest operated,	116 times.
Failed to operate,	22 times.
Number of eggs laid outside of nest,	9
Per cent of total number of eggs obtained from individuals,	72

Cause of failure to operate: wire, which back of hen must touch in order to trip the door, was bent up so that her back did not touch it and door did not drop, allowing hen to go out. Nest of single compartment, easily set and cleaned. Hen released easily. No interference from nesting material. Adapted to large hens.

17. MODIFIED MAINE NEST.—IN USE FROM MARCH 1 TO JUNE 1.

Number of females in pen,	4
Variety—Black Langshans.	
Total number of eggs laid,	40
Nest operated,	15 times.
Failed to operate,	23 times.
Number of eggs laid outside of nest,	2
Per cent of total number of eggs obtained from individuals,	37

Failed to operate because hen could release herself by putting her head under door and raising it; door being rounded out on bottom did not close opening entirely. Nest of two compartments. Hard to clean. Nest set and hen released easily.

18. IDEAL NEST.—IN USE FROM JULY 1 TO AUGUST 1.

Number of hens in pen,	5
Variety—Pea Comb Rhode Island Red.	
Total number of eggs laid,	27
Nest operated,	10 times.
Failed to operate,	12 times.
Eggs laid outside,	5
Per cent of total number of eggs obtained from individuals,	44

Nest failed because latch did not drop far enough to hold door, caused by damp weather making it stick. This allowed hen on nest to leave at will, or another to enter before the first hen left. Nest cleaned and trap set easily. Single compartment nest. But little interference from nesting material.

19. ELECTRIC ALARM NEST.

This trap nest was not tested with the others. It was, however, used in a house with a number of other nests. By means of wires the mechanism of this nest can be connected with the poultryman's office or house, or any other desirable place. It is arranged to ring an alarm when the hen, after laying, has left the inner nest and is ready to be released. The electric alarm apparatus operated successfully, except when the trip arrangement failed to work. This happened rather frequently, as some of the hens in the pen were smaller than others and failed occasionally to touch the hanging block which served to trip the door after entering the inner compartment. This nest has two compartments, its trap is set without much difficulty, the hen is readily released, and the nesting material does not interfere with the mechanism. It is adapted to fowls of one size.

20. KIRBY NEST.

This nest was invented and donated to the institution by a gentleman of Providence, R. I. It was received too late to test with the other nests. It is simple in construction, but the door, which is very light in weight, frequently failed to fall and shut when the trigger was released by the entering fowl. This nest has two compartments, and is very easily set. The hen is readily released. There is practically no interference from nesting material, and it is adapted to all breeds.

Although it is possible by the use of trap nests to determine the number of eggs laid by individual hens, the impracticability of their use on a large scale is evident since the expense of attending them overbalances, in a business sense, the results obtained. In all the tests here reported it was found necessary to look at the nests during the busy laying season at least five times per day, and if a hen had laid each time, it took considerably more than the "one minute a day" claimed by more than one of the inventors, to release the hen and credit the egg to her account.

In looking after twenty pens of about five hens each it took on the average fifteen minutes each time, or one and one-fourth hours per day. A person keeping five hundred fowls would therefore use about six hours a day in determining how many eggs each hen was laying. This time could often

be used to better advantage in giving the hens better care, and in looking after other details.

We fail to see how any of the devices could prevent egg eating, as was claimed for some of them. In all the nests the hen had access to the egg after it was laid, and in one or two instances a hen was known to eat the egg.

To sum up, let us say that, except in the cases mentioned in the beginning of this report, we fail to see that trap nests are of the practical value that the several inventors

claim for them, to say nothing of the prices asked for their ideas or the finished article. What will please one is likely to prove unsatisfactory in the hands of another. The poultryman wishing to use trap nests will do well to consult with persons already using them, and construct his own to suit his purpose; for anyone with ingenuity can construct a trap nest as good and better than many we have seen.—THOS. H. TAYLOR, JR., in *R. I. Agr. Expt. Sta. Report, 1901.*

SYSTEMS OF ARTIFICIAL INCUBATION.

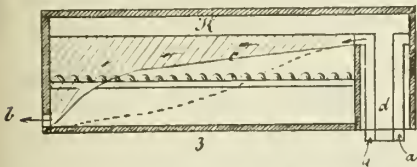
Why So Many Chickens Die in the Shells — Ventilation and Moisture—Defects of Systems in Use.

(Continued from page 460).

IV. An American Apparatus.



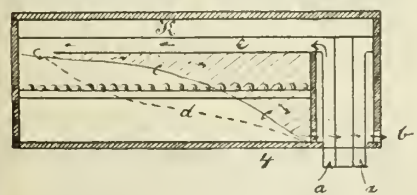
THE AIR enters at *a* into a circular tube surrounding the heating tube *d*, is heated thereby, rises to the boiler *K*, and spreads now through the apparatus along the bottom of the boiler. The suction takes place on the opposite end at *b*. This suction is much too small, since the temperature at the bottom of the apparatus, where the hole *b* is situated, is at least 10° lower than at the top



of the cover; only at the left side there is a suction, and the airing level sinks only under favorable conditions somewhat lower. It is an advantage, on the other hand, that the air comes from above, and that the humidity is better, because there are evaporating plates close below the cover. In small apparatuses the result is better than with the Hearson apparatuses; in large ones, however, pretty much the same, perhaps worse. Only that part is exhausted which is in the vicinity of the hole *b*. The longer the apparatus, the worse the result.

V. Another American Apparatus.

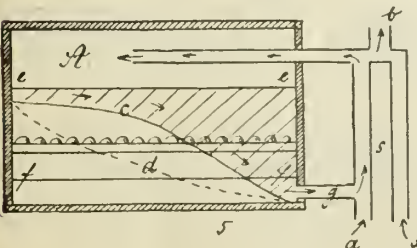
The entrance of air is arranged here just as in the preceding apparatus, but the air is previously, by a shaft, led to the end of the



apparatus, and the suction effect takes place at the entrance point at *b*. The current, therefore, is reversed to that in the preceding apparatuses. The airing deserves the same criticism as under number IV., only in reversed direction.

VI. A Third American Apparatus.

The air enters likewise at *a*, into a tube surrounding the chimney, penetrates into the heat receptacle *A*, is sucked off by the tube *g*, exhausting at *b*. The force of suction here is considerably greater, because the heat of the chimney *s* is used for suction, but this sucking off is also one sided, as the cut shows, and it is

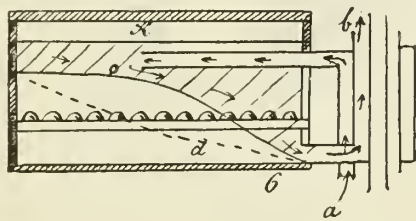


necessary to change the drawer twice per day to give the eggs an even airing. The apparatus is better than the other American apparatuses,

but there must be a good airing out in the hatching place, and the drawers must be carefully changed. In warm weather, and with ducks' eggs it is not sufficient, in spite of the increased ventilation, especially since it is also one-sided, hens' eggs hatch well in cool weather. The apparatus is a dry incubator. It is based on the theory that the current is retarded by the cloth partitions from *e* to *e* and from *f* to *f*, and that the eggs themselves generate humidity by evaporation, which humidity is retarded by the cloth. It is a disadvantage that there is deposited in course of time, dust or even soot upon the upper cloth *e* to *e*, which weakens or even wholly interrupts ventilation. The result is superior to the other American apparatuses; it is sufficient in spring in a well ventilated room, but not sufficient with ducks' eggs, and in warm weather. As in all previous apparatuses, the eggs receive, on the average, too little air, and evaporate too little. The inside of the apparatus must be cleaned frequently.

VII. A German Imitation of This Apparatus.

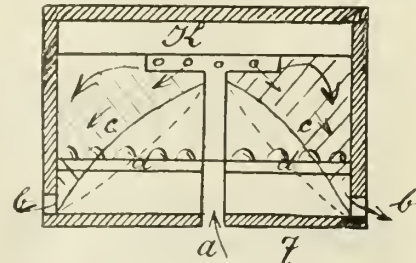
Adler von Sartorius has only the distinguishing innovation, that the tubes of



entrance *a* and of exit *b* are separated. Otherwise his principle of ventilation is the same. Ventilation is, therefore, here also one-sided, and the eggs receive too little air. A supply of humidity has been attempted by arranging a water basin below *a*; but this has no effect because the evaporation of it is so slight that an increase of humidity in the apparatus cannot be determined by instruments. Moreover, the air is constantly heating along the chimney so much that all humidity is lost. This imitation, therefore, is just as much of a dry incubator as the one called "no-moisture." The assertion of the manufacturers that in the "no-moisture" machine the exhausted air goes again and again through the apparatus, is wrong. It rather escapes at *b*.

VIII. A Fourth American Apparatus.

The air enters at *a*, in the middle of the apparatus, rising to the bottom of the boiler. Here it is evenly spread out in all directions, and then sucked off at *b*. This system has

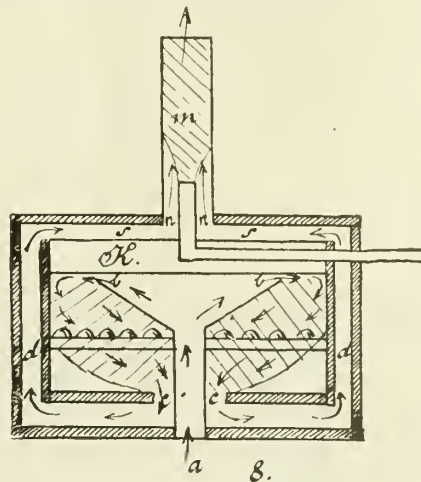


proved superior to the others, yet it has two defects. First, the force of suction at *b* is still too slight, consequently the degree of ventilation also is dependent upon the influences of the outer atmosphere, and also too slight in hot summer. Secondly, eggs lying in the

middle near the tube *a* receive too little ventilation. This, however, does not make much difference, since the apparatus is round, and there are only a very few eggs in the middle, but it is a slight disadvantage at any rate. The holes *b* are arranged in a circle and are very numerous, the ventilation, therefore, is perfectly even at the edge. The humidity can be correctly regulated by a special contrivance. The apparatus has on the average given excellent results, yet in warm weather its ventilation is still too slight and still too much dependent on the condition of the outer atmosphere. The ideal was not yet realized with it.

IX. The Victoria Apparatus, Model II., Cremat's System.

With this apparatus all demands previously mentioned are met. The air again enters at *a* in the middle of the circular apparatus, and is raised up by a very strong aspirator force, which we shall explain later, entering into the funnel *b*. It is heated at the bottom of the cover *K*, and expanding thereby is crowded over the rim of the funnel against the apparatus walls. Here it finds resistance, and is pressed down, coming within the effect of the



air current. It is then from all round the edges drawn to the middle, obliquely through the eggs, enters at *c*, the space between the two bottoms, and from here by numerous holes into the cavity *d* of the walls (giving an effective insulation against outer cold) and then it enters by other holes, also arranged circularly in the suction chamber *s*, which is situated upon the boiler. It receives its heat from the boiler, being heated to 55°–60° C. The large air volume enclosed in the suction chamber *s* will then, with great energy, exhaust at *n*, and enter into the suction head *m*.

The heat gases of the lamp also enter here, having the same temperature of about 60° C. They spread in the suction head, as is shown in the shaded part, and with the effect similar to the piston of a pump, they suck in conjunction with the suction chambers *s*, placed behind them, the air through the holes arranged in a circle, and through the hollow walls out of the apparatus, while fresh air entering over the rim of the funnel *b* strikes evenly over all eggs. The force of this suction is extremely large, because the large hot air volume in the suction chamber *s*, increased by the heat gases in the suction head *m*, represent a very large energy. The outer temperature ought to show at least 60° C, if this ventilation can be interrupted, so that this apparatus will be effective even under the equator. The ventilation can be regulated by a slide at *a*.

Trial experiments with this system have demonstrated some surprising facts. (1) As in natural hatching the eggs took on a characteristic smoothness of surface, a proof for the fact that this smoothness is not caused by the hen by friction, but is a sign of the increased breathing induced by the large supply of oxygen. (2) Although I hatched with 39° C only, one part of the chickens hatched on the 19th day, ducks on the 24th, a sign that increased supply of oxygen causes an increased growth. The chickens showed extraordinary strength, seldom apparent even with mother hens, and at the age of seven days they were further developed under the same feed conditions than hen hatched chickens fourteen days old. The results obtained were from 81 to 90 per cent (this, too, with duck eggs, a result never before obtained) in spite of the fact that the tests were made since July during great heat and incipient molting. The apparatus has also a device to regulate the humidity,

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Pullets and cockerels in Rose and Single Comb. Chicks bred from New York and Boston winners and an extra fine lot. Will sell very low if taken this month. Send for descriptive circular.

HAZELMERE POULTRY YARDS,
CRANSTON, R. I.
W. E. RICHARDSON, Prop.

Write BRIGGS for

WHITE WYANDOTTE INNERS...

For the big shows. He has them on

BUTTONWOOD FARM,
Box 407, TAUNTON, MASS.

YOUR FORTUNE told by the STARS, with photo of person and birth date. For stamps and birth date, PROF. ASTER, Box 3093, PHILA., PA.

which permits to maintain a desired degree of humidity constantly.

It is easy to see from these explanations that quadrangular apparatuses can never meet the highest demands upon ventilation, still much less long apparatuses, but that the circular apparatus is the only one in which the air is strongly sucked off from the round walls through all eggs out of the middle below the eggs, and in which each individual egg can receive an even and sufficient quantity of air. Actual practice has admirably justified this theory. We have not yet received notice of a single defective result with this system. One single apparatus of this kind hatched in three periods about three hundred ducklings from about 400 eggs.

3.—*The Right Humidity.* I now come to a factor which has been for years under wide discussion without the central point, as it seems to me, being hit upon. This is the chapter of humidity in incubators. Opinions in this regard go in three directions. One faction maintains that artificial humidity is not necessary at all because the egg contains already too much humidity, and it is therefore only necessary to arrange ventilation in such a way that exactly the excess will evaporate. The hen herself is dry hatching, giving good results even in the hottest of summers. The second faction believes that humidity ought to be furnished the eggs during the whole term, because otherwise the oval membranes would dry up so that the chickens could not break through the shell. The third faction finally wants to hatch now with, now without humidity, according to the rate of humidity in the outer air.

According to my opinion it is merely a question of ventilation, whether to use humidity or not. If we succeed in constructing an apparatus in which the air passes evenly and slowly through the eggs then the humidity contained in the ovum is perfectly sufficient, as is proved by numerous and excellent results with the Cyphers and Phoenix apparatuses. The great danger, however, is that such a weak ventilation is very easily interrupted by atmospheric influences. Moreover, there is no doubt that the chickens grow the stronger the more oxygen is furnished them.

I have changed my standpoint (in the beginning for technical difficulties, but later because my aim was to hatch chickens superior to those of natural incubation), and I have increased ventilation which naturally brought about an increase of humidity supply, because the stronger the ventilation becomes the more humidity must be contained in the air, so as not to dry up the eggs too much. The chicken, however, will also be stronger.

It is therefore necessary, as I have emphasized already, to find the right ratio between strength of ventilation and degree of humidity in order to accomplish the right evaporation of the oval contents. One can therefore without any doubt gain good results both with dry hatching, and with the employment of highest degrees of humidity, if the strength of ventilation is arranged in accordance. The truth ought to lie here as everywhere in the middle. Which, therefore, is this middle? The best way to determine this would be to ask mother nature about this point.

If we do this, if we allow sitting hens to sit during the whole term on a hygrometer between the eggs, we will find that the hen develops about 40 per cent humidity, which amount increases to about 45 per cent towards the end of a term. A duck, however, incubates in the first fourteen days with 40 to 45 per cent humidity, which afterwards rises very swiftly and successively, reaching towards the end of the term 60 to 70 per cent. It is easy to find an explanation for that fact.

The birds are in the beginning of their sitting, in a pronounced feverish condition, which interferes considerably with the normal secretion of perspiration. After the middle of the term, however, their temperature goes more and more down without danger for the embryos, because the latter develop at this time more heat of their own. The more the dry feverish condition abates, giving room to the normal condition, the more is the normal perspiration increased, consequently the humidity in the nest with it, aided by the slowly increasing respiration of the embryo, by which vapor is expelled. The exceptional increase of humidity in the case of ducks may perhaps be explained by the fact that they

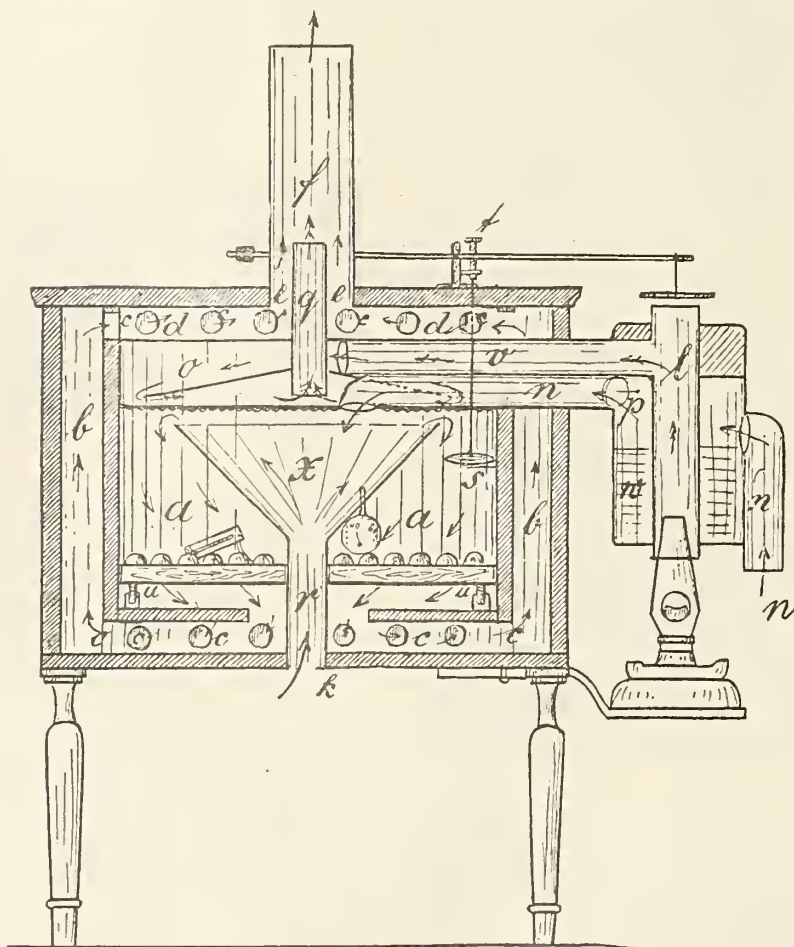
consume large quantities of water, inducing profuse perspiration.

The only value of humidity lies in keeping the oval membranes pliable and protected against desiccation, which would raise obstacles for the oxygen in entering into the allantois. The provident ways of mother nature are plainly apparent. Since the need of oxygen grows during the course of hatching, the humidity must likewise increase in order to facilitate respiration. The plasticity of the oval membranes must therefore be continuously increased. Humidity moreover absorbs a certain quantity of carbonic acid, and since with increased respiration this gas is also exhaled in increased volume, the humidity of the surrounding air must be increased in order to prevent the accumulation of this dangerous gas.

On the other hand, the ventilation likewise must rise to facilitate sufficiently the process of evaporation; this is accomplished in nature by the fact that the mother birds lose more and more of their feathers, and leave the nest for longer times. In this point we can copy nature accurately, i. e., we begin incubation with the same degree of humidity, and by

sidered too little. If these plates are placed below the eggs, the water remains far too cool to enable an appreciable evaporation. For the same reason, however, which leads our physicians of repute to assert that for the human body the relative humidity cannot fall below 40 per cent without danger for the activity of the cuticle, is it necessary, perhaps even more so, that this should be the normal for the tender oval membranes which mediate the functions of respiration in the embryo bird.

I hope to have in the above presented exhaustively the laws of artificial incubation on the basis of studies and experiments carried on for more than four years uninterruptedly with almost thirty different foreign and home-made systems, to have solved all doubts and secrets, and to have realized my ambition to raise artificially chickens which do not only equal in quality the average results of natural incubation, but are their superiors. Even in nature the quality of the chickens is absolutely dependent on the question whether a nest admits of sufficient ventilation, and whether the mother bird develops sufficient heat. Since these conditions are not always fulfilled, it



THE VICTORIA INCUBATOR.

means of the slide control a continuously increasing ventilation in such a way that the evaporation (determinable by loss of weight) corresponds to the principles above stated, with simultaneous increase of humidity. To accomplish that, it is of course necessary that both humidity and ventilation, (the former with the aid of a hygrometer) should be under control. This is the only possible way of emancipating one's self completely from atmospheric influences.

The results of the different incubator systems, insufficient on the average, are not only caused by a ventilation that is uneven or too weak, but also by a too small or varying percentage of humidity. It is true all manufacturers have applied contrivances for humidifying the air, but they are wholly illusory or almost so; they do not take into consideration the fact that the tendency of the air to absorb moisture increases just as rapidly as its temperature. It absorbs, therefore, not only the water, which on account of its low temperature evaporates very little, but (this water not corresponding with its capacity of absorption at a temperature of 40° C) also too much humidity from the plastodermic membranes, aggravating thereby the breathing. It even absorbs the moisture of the walls so that these incubators always dry out. Even in those incubators where plates with water are attached close to the cover the humidity rarely rises above 30 per cent, which must be con-

must be possible to prevail over average nature by artificial means.

If, therefore, I may shortly repeat the causes for the dying of so many chickens, and especially ducklings in incubators, they are the following:—First, ventilation is not even enough, nor is the air evenly enough distributed among the eggs in the incubators; there are currents in the apparatus preventing an even airing of all the eggs. The air is too poorly stirred, especially when ducks' eggs are being hatched. Secondly, the air is far too dry. It must contain 45 per cent humidity for hens' eggs, and up to 60 per cent for those of ducks. The ventilation at the same time must be strong, that no humidity

Give and Get

Treat your poultry as you do your other stock. They can scratch and get what they need in summer, but in winter feed them

Cut Clover Hay

and they will respond quickly with large egg yield. **Our Cut Clover** is made from specially prepared, air-dried, second growth stock, which we offer at the very special price of \$1.50 per 100 lb. bag.

Our full line of poultry foods, appliances, etc., is shown in our new free catalogue.

Crushed Oyster Shells, Incubators, Bone Cutters, Grit, Bone, Beet Scraps, Disinfectants, Lice Killer, in fact everything you want found in this book. Write for it to-day.



HEALTH—VIGOR—UTILITY.

FINE BREEDERS **WELL BRED** YOUNG STOCK

EGGS AND CHICKS.

R. and S. C. Whit, Br., and B'f Leghorns, White Wyandottes, Chicks, 15c. each. Eggs, \$1 per 13; \$4.50 per 100. Breeders and young stock at reasonable prices. Square deal.

ORANGE POULTRY FARM, Box 115, Derby, Ct.

LEE'S LICE KILLER

for poultry and stock. An absolute exterminator of chicken and hog lice and mites. Apply with brush to roosts for poultry; sprinkle on bedding for hogs. Lice can't live near it. It kills the last one. Sold by best dealers everywhere. Never in bulk, always in cans with our name and trade-mark.

SAMPLE enough to try it thoroughly Free. GEO. H. LEE CO., Sole Makers, OMAHA, NEB., or 8 Park Place, New York.

MY ROCKS

Are beautifully barred to the skin, right in every way, and fit to win in any company. I have been breeding **BARRED PLYMOUTH ROCKS** exclusively for 15 years, and my stock is second to none for breeding or exhibition purposes. I have just what you want to breed or win with, and at fair prices for quality. Satisfaction guaranteed. Circular free.

J. W. RANDALL, Prop., Meadowview Poultry Yards, 403 Salem St., Malden, Mass.

ROOM AT THE TOP

top, we have issued not an ordinary catalogue but the **20th Century Poultry Book.**

Contains the latest and best thought on the poultry question, from the egg through all its changes, to the market. No subject missed. Written from practical experience. The world renowned **Reliable Incubators and Brooders**, used all over the U. S. and in 51 foreign countries, receive deserved attention. Book mailed anywhere for 10c. **RELIABLE INC. & BROODER CO., Box A-169 Quincy, Ill.**

If you want

White Rocks,

I have some good cockerels and can spare a very few more pullets, or eggs for incubators, from mature stock. Write for prices.

E. S. HOWE, 915 Varian Ave., Lowell, Mass.

INVESTIGATE.

All of this season's breeders for sale at half their value. Barred and Buff Rocks; White, Buff, Black, Golden, Silver and Columbian Wyandottes; R. I. Reds; Brahmas and Cochin; Leghorns, Minorcas, Blue Andalusians and Hamburgs.

Cockerels for sale in the following varieties, that are large, vigorous and all in quality:

White, Buff, Golden, Silver, Partridge and Columbian Wyandottes; Barred and Buff Rocks; R. I. Reds, Rose and Single Comb. Prices very low for quality.

Hazelmere Poultry Yards,

W. B. RICHARDSON, Prop., Knightsville, CRANSTON, R. I.

The Pan-American Exposition

Is conceded to have held the most representative poultry show ever held on this continent.

BRIGHT'S BARRED P. ROCKS, BROWN LECHORNS,

Added "Lustre to their Fame." The Barred P. Rock males won six prizes on six entries, including both firsts. The Lechorns won either first or second in all five classes, and twelve prizes on seventeen entries. These records were made in a show in which nearly all of the leading breeders were represented by their best, and as usual the **Real Champions** won.

Exhibition Birds that will Win, and Breeders of Unexcelled Merit for sale at reasonable price.

A few large mature cockerels of great vigor and size for sale at low prices.

GROVE HILL POULTRY YARDS, Box 461, Waltham, Mass. WM. ELLERY BRIGHT, Prop. A. C. SMITH, Supt.

can be deposited on the eggs to interfere with their sufficient evaporation. This can be accomplished only by utilizing the boiler surface for the absorption of air, and by introducing air in the middle of the eggs, and creating an even draft over all the eggs.

High percentage of humidity for ducks' eggs can only be reached by employing the lamp for the generating of steam to be introduced into the apparatus by a tube. By the use of a slide, which will close this tube more or less, as it is found necessary, one can then create any desired humidity in the apparatus, even 70 per cent, as must be the case with ducks' eggs towards the end of the term, not only temporarily, but continuously. Even a single interruption will cause an immediate desiccation of the allantois, preventing respiration and inducing death. The unevenness of humidity, therefore, is another cause; the apparatus is either too dry or too moist.

Since hens' eggs require less humidity than ducks' eggs the humidity must be controllable, likewise the ventilation, because ducks' eggs require also more air. It is true many apparatuses have a slide for that very purpose, but it is only good for restricting ventilation, not for increasing it, and the ventilation being principally too weak in all apparatuses this slide is simply superfluous; at any rate it cannot be a means of increasing the current. This is the reason why all other apparatuses incubate poorly in the south; for example, in California, Argentine, etc., while the German Victoria incubator gives good results even under the equator.

In December I shall exhibit my apparatus, which is patented in America also, in Philadelphia, and invite interested parties to inspect it, and I will now give a more accurate description of the same.

The important point is that the air escape freely from the apparatus, and that the airing be sufficiently strong, especially with ducks' eggs. This is accomplished by the arrangement that there is a suction chamber *d* on top of the hot air tank *c*, the former being heated by the latter to about 140°. This rarifies the air to such a degree that it will escape with energy even at an outer temperature of 120° (under the equator therefore) at *e* into the chimney *f*, and thence into the atmosphere. The heat gases after having heated the hot air tank *c* discharge likewise into the chimney *f* from the inner chimney *g*, and this increases the aspirator effect so that now nothing can cause an interruption of the current, a danger so fatal for the artificial brood. In the same degree with which air is discharged from the space *b*, air must fill in by the upper holes *c* from the cavity *b* between the walls, so that the air is again drawn off out of the incubating chamber *a* through the lower holes *c*.

Now, fresh air can penetrate into the incubating chamber by two channels: firstly, by the tube *k-r* into the funnel *x*, and then over its rim to the apparatus walls, whereupon it is drawn together diagonally through all the eggs toward the middle; secondly, into the tube *n*, above the boiler *w*, into the inner tube *n*, and thence into the chamber *a*, there being a slide at *p*. If this is wide open about 60 per cent humidity is obtained, as is necessary for ducks' eggs during the last eight days; if it is closed we gain only 20 per cent, which amount is not enough for the embryos to live in. The humidity increases the wider the slide is open. In this way it is possible to maintain accurately and continuously any required percentage of humidity, and this fact is of decisive importance. If after fourteen days of 40 per cent humidity it would by a mistake sink to 20 per cent for a few hours only, the oval membranes would dry up at once, impeding respiration and causing a portion of the eggs to spoil, especially with ducks' eggs.

The humidity must vary just as little as the heat; the more constantly it is kept at 40 to 45° the better will be the brood. A hen incubates even in the haymow with a humidity of about 40 per cent, ducks with 45 to 70 per cent, while all incubators, even if water holders are placed directly below the boiler, never contain more than 30 per cent humidity, which is not enough. With my apparatus I obtained by maximal ventilation and 60 per cent humidity 180 strong healthy ducklings out of 200 Pekin eggs, and with hens' eggs I have never yet realized less than 90 per cent, the chickens moreover being so healthy that there was almost no death. These are results

never before obtained with any apparatus in the world, and large duck raisers will admit that they seldom obtain more than 50 per cent.

It puts artificial poultry raising on a safe basis, obviates failures, and produces fowls that are healthy, strong and sure to live, just because they have in the embryo stage received enough fresh air, which is not the case with other systems where many of them partly remain too weak to break the shell



WE ARE in receipt of a communication from Mr. F. W. C. Almy, Tiverton Four Corners, R. I., in which he says:—"I have read with interest your article on poultry farming in this vicinity in your issue of Dec. 1st, but would ask you to correct one or two statements with reference to myself. In the first place I think you convey the impression that the coops into which I move my pullets when separated from the cockerels were the same as those in the picture on page 455, when they really are considerably larger, some, in fact, about twice as large. Secondly,—and what I feel is an injustice to me as an advertiser, though in a small way,—you say, 'barring the inevitable crowding,' etc., which would give poultrymen in general the impression that my young stock were so crowded that it would be impossible for them to develop properly, and consequently they would look elsewhere for breeders. Now, the fact is that only fifteen pullets are put in each coop, and all can sit comfortably on the perches without any crowding. They are broken to each coop when first put out, and never changed."

"As a proof that they are not crowded, I raised about 900 pullets in 1900, and between 700 and 800 this year. They were placed in these coops in July, and some remained until Dec. 1, and out of these 1600 or 1700 pullets I did not lose one from disease, and there were scarcely any that had even the 'snick' when housed for winter, and not one either season with a swelled eye or roup, which is a strong argument, in my opinion, that they were not crowded."

"Furthermore, although the standard weight of pullets is, I believe, 4½ lbs., I can show you whole houses, not selected at all, that will average within an ounce or two of 5 lbs., if not fully 5 lbs. And I will match my 700 pullets for size and development against the same number raised by any man in the country."

Mr. Almy and I evidently consider the question of room from such different standpoints that we cannot see a matter like this in the same light. With fifteen chickens in a coop, his have more room than many, if not than most of the growing pullets in that section, but they have not nearly as much room as my experience and observation have taught me to consider is required to enable stock to make the best possible development. I am not writing from a one-sided consideration of the matter, for I have grown a good many chickens at one time and another that have been subject to the effects of overcrowding.

If Mr. A. has read what I have written—or any considerable part of it—on the subject of crowding, and of giving growing chicks room, he should know that I have many times gone on record with the opinion that far too many breeders—in fact most breeders—of all classes do not give their growing chicks room enough. Reviewing what I have said of Mr. Almy and his stock in its entirety, I cannot feel that the criticism as to crowding does him any injustice, nor do I think readers of the paper, who, in the same paragraph and sentence, are told how good conditions are in other respects will be prejudiced against his stock. There is very little stock grown that is not subject to some drawback. I can say again, as I did in the article in Dec. 1st paper, that his stock is "improved much beyond the average Rhode Island Red fowls of the district." I do not think that his pullets, though above standard weight, are as large as they would be if given more coop room; and as far as the standard

because of lack of air and humidity, partly die off within a month from sheer constitutional weakness. This is moreover the only system which will be effective even in the hottest weather, in the south as well as in the north, in the mountains as well as at low altitudes, in the interior as well as on the coast; it is effectively independent of any climate or of any weather.

WILHELM CREMAT,

Captain retired Gross-Lichterfeld,
bei Berlin, Germany.

Mr. Almy Asks Corrections.

weight for pullets is concerned, I have always considered it too low, if it is desired to keep the Reds in the class of general purpose fowls.

The challenge to breeders to show 700 Red pullets equal to his, may interest those who have large stocks of good pullets, of whom there are quite a number; but it does not particularly enter into present considerations. It is not a question of whether anyone with an equal number has as good. Even if it were, the comparison of pullets would hardly be made on the assumption that the amount of coop room was the principal factor in determining size. It is only one of several important factors. Mr. Almy, himself, is in a position to make a thoroughly practical test of the results of giving more coop room to pullets of the same stock, same hatches, etc., with all other conditions alike. If he will do this with enough pullets to constitute a fair test, I do not think he will ever afterwards be satisfied with the amount of coop room that he now considers sufficient. With his splendid facilities in all other respects, and his skill as a poultryman, I do not doubt that with a more liberal allowance of coop room to the immature pullets, he could turn out 700, 800, or 900 pullets a year that would be a half a pound to a pound heavier when grown than his pullets are now. Far sighted R. I. Red breeders are not going to be satisfied with pullets below Wyandotte weights.

As to the particular coop used, if Mr. Almy will re-read the Dec. 1st article, he will see that I plainly stated that it was the coop on page 456. And as to the absence of colds being a proof that the chicks were not crowded, that does not necessarily follow.

"Out west" the writer used to buy the large cakes of "cracklings" from rendered lard at 25 cents per cake, for dog and chicken feed. In the "effete east" the same article now retails at 20 cents per pound, and they do say that it figures conspicuously in a certain delicacy which is quite the fad at present.



CUSHMAN'S

have been improved to a degree that makes them nearly a pure breed. They have the most desirable type and color.

WE OWN

And have bred from this season **FIRST PRIZE SINGLE COMB COCK**, and **SECOND PRIZE ROSE COMB COCKEREL**, BOSTON, 1900. Also the **SECOND PRIZE S. C. COCK**, BOSTON, 1901. Later is **FATHER OF FIRST AND THIRD PRIZE S. C. COCKS** at same show, and **FATHER OF FIRST PRIZES S. C. COCKEREL** and **FIRST PRIZE S. C. PULLET**, and of the **COCKEREL IN THE FIRST PRIZE PEN AT BOSTON, 1900**. This cock is also **GRANDFATHER OF FIRST AND SECOND AND THIRD PRIZE SINGLE COMB COCKERELS**, AND **GRANDFATHER OF FIRST ROSE COMB COCKEREL**, BOSTON, 1901, AND **GRANDFATHER OF FIRST PRIZE ROSE COMB COCKEREL**, NEW YORK, 1901.

"Blood Will Tell."

Our chicks never had a better chance, and never did so well as the 2300 Reds now being raised right on the deWolf Farm. We solicit your orders for old hens and cocks to be delivered immediately, and for cockerels (and a few exhibition pullets) to be delivered in the fall.

SAMUEL CUSHMAN & COMPANY,
deWOLF FARM, PAPOOSESQUAW,
Bristol, R. I.

We have the biggest and best flock of White Plymouth Rocks in this country.

We invite comparison
In either show or
practical qualities.

Our birds are WHITE, and have yellow legs and skins. The females are persistent layers, while the males are the best of market birds.

We have won many of the best premiums

In the biggest shows, and have sent winners to all parts of the country.

We have about a thousand sale birds,

and shall be pleased to have you write and ask questions about them.

POLLARD'S POULTRY FARM,
South Attleboro, Mass.
GEO. H. POLLARD. F. M. POLLARD.

PARK'S REDS

— Won at —

PAN-AMERICAN

1st Cock'l.
1st, 4th, and 6th Pul.
3d Hen in Rose Comb class.

1st Cock'l.
2d, 3d, and 5th Pul.
2d Hen in Single Comb class.

No old male birds shown.
Winning 3 out of possible 4 firsts in young birds classes stamps the highest mark of approval upon our last season's mating.

IF YOU WANT TO WIN, WRITE FOR PRICES

Breeding Cock'ls, \$3 to \$10.

Breeding Pullets, \$2 to \$5.

All birds shipped subject to buyer's approval.

P. R. PARK, 195 Lowell St., Methuen, Mass.

COME AND SEE THEM

OR WRITE US AT ONCE.

SPLENDID BREEDERS: Males \$3, \$5 each.
Females \$1.25, \$2 ea.

White Wyandottes,
Barred Plymouth Rocks,
Light Brahmas.

Circular gives show and egg record of our stock. Send for it.

EDGAR D. PULSIFER & SON, Natick, Mass.

Have YOU Read the Superb
Christmas Number of

Frank Leslie's POPULAR MONTHLY

Color Plate Illustrations.

Stories by I. Zangwill, Ballington Booth, Maurice Hewlett, Chas. Reginald Sherlock, Sewell Ford, Onoto Walanna, W. MacLeod Raine, Cy Warman.

10 Cents

Leslie's Great \$1.00 Offer

If this paper is mentioned we will send our Double 25th Anniversary Number (Nov.); our superb Christmas Issue; and the entire 12 numbers of 1902, together with our Beautiful 1902 Art Calendar, all for \$1.00. This Calendar portrays "The Popular Actresses and their Favorite Flowers," specially painted for us by Miss Maud Shumme, the famous water-colorist, in 5 sheets, size 12½x18; tied with silk ribbon, lithographed in 12 colors on pebble plate paper. This offer is made for a limited time and should be accepted to-day.

Among the fiction and original special articles which will appear in Leslie's Monthly during 1902 are products of the pens of Nansen, Zangwill, Ballington Booth, Henry van Dyke, Owen Wister, G. G. D. Roberts, Ralph Connor, Booker T. Washington, Frank R. Stockton, Mary Wilkins, Margaret Sangster, Conan Doyle, Siekiewicz, F. Hopkinson Smith, Ian MacLaren, Hamlin Garland, Quiller-Couch, Bret Harte and a multitude of others.

By subscribing \$1.00 now you receive the Art Calendar and 14 numbers of Leslie's Monthly. Specimen copy and illustrated Prospectus 10 cents, which amount will apply on your subscription sent to us, should you accept the above offer.

Agents wanted. Apply quickly. Terms liberal.

FRANK LESLIE PUBLISHING HOUSE
(Established 1855)
141-147 Fifth Ave., N. Y.

TRYING THE POULTRY BUSINESS.

Advice to a Young Man.



FROM a western state (central west) a young man writes me a personal letter asking for information and advice. Introducing his case he says:—

"While a reporter on a Boston paper I took a trip through southeastern Massachusetts, covering the forest fires of two years ago. I was struck with the cheapness of the land and its apparent adaptability to poultry farming. My three years newspaper work and my course in Harvard college has for the time being 'knocked me out.' Last August I came home to build up, and the process has been so slow that I feel I should take a rest of two or three years. At first I thought of raising poultry out here, but after looking over the ground it seems to me that there are better opportunities near Boston, especially so in my case, as I have other interests in the east.

"I raised chickens in a small way while attending school at home six or seven years ago, and I enjoyed it, and made some money at it, and I believe I could succeed with poultry in Massachusetts if conditions are as I believe they are. Now, of course, if I do go into poultry raising near Boston, I am after as much for my money as I can get. I want to rent some cheap property near a small town, and if there aren't any buildings on the land I shall build as cheap a shanty as possible to live in. My ultimate design is, if the poultry proves successful, to buy property and go into chickens for business. * * * Now briefly, the questions I wish answered are these:—

"1. Do you consider my plan feasible?

"2. What do you think of the vicinity of Buzzard's Bay? Can you name any better location?

"3. How much rent will I have to pay for cheap property? Do you know of anything available, either for sale or for rent?

"4. On how large a scale would you begin?

"5. Would you get an incubator? I have a Co.'s catalogue; their machines it seems to me would be better than hens.

"6. I think of beginning with mongrel chickens, and gradually securing standard stock. Is the plan a good one?

"7. I think of going in for both eggs and broilers. What would you do, or, rather, advise me to do?

"These questions I have asked, as far as I can see, cover the ground. Perhaps, however they are not questions that you can take time or trouble to answer. If this is the case you may give me a line or two of plain advice, and I shall be very much obliged to you. My bump of caution is simply a little bit large. I don't want to take a step and then regret it."

I wrote my correspondent briefly advising him not to engage in the poultry business on any scale for himself until he had learned something of it by practical experience. I could not take time to give reasons in that letter, but I want to give some of them here in connection with replies—or partial replies to his questions. The matters involved are of interest to many others.

I learned the poultry business, as a business, by engaging in it on my own account, putting considerable capital into it before I got it on a basis where it would yield an income—a living. In some ways the conditions then were less favorable than now for the self taught poultry keeper. The poultry literature of today is very much more serviceable to the working poultryman than that of a dozen years ago. I do not think I err in thinking that, other things remaining the same, had I then had literature equal to that of today it would have made a considerable difference. But I cannot figure out a difference in favor of beginning at the beginning for one's self, except in cases where one has, or has use of, land, and is so situated that the actual expense is very light. I always took a certain satisfaction in the mastery of certain details of the business which I worked out for myself, sometimes after much trouble and loss; but such feelings of satisfaction were

always modified by regrets because of the expense of the experience. In my case, also, health was the first object in poultry keeping. I secured it as the result of the outdoor employment, but would undoubtedly have secured the results of that kind more quickly had I gone to work for some one else in a position where I would have had the exercise with less of worry and responsibility.

If I had my poultry life to live over again I would by all means make an apprenticeship of several years on a good poultry farm the beginning of it. Such being the case I cannot conscientiously advise a different course to anyone else, unless under such exceptional circumstances as I have suggested.

There are many cases where a man begins poultry keeping as a side issue, giving his time to something else mostly while trying to see what he can do with poultry. Such a division of attention and time, with poultry second, is hardly a fair test for the poultry, but it sometimes results in making a poultry-



PAIR OF AFRICAN GESE.

From a snap shot at geese driven toward the camera.

man. More often, unless the person involved is extremely cautious it results in his financial unmaking, temporarily at least.

But when one is going to begin giving his entire time to poultry, and, in addition, paying for everything in the way of land and equipment, the case takes on a different aspect. Under such circumstances a small capital is rapidly absorbed—and very little to show for it. I most emphatically do not believe in engaging in poultry keeping on a business scale on rented property, unless that is properly equipped for the undertaking. I have seen that done more than once. It is throwing away money. To handle a large stock advantageously one needs suitable buildings well arranged. These cost money. Good buildings cannot well be moved any considerable distance. Poor buildings, etc., mean harder work and reduced profits and prospects of ultimate success. Nine times out of ten the renter is bound to lose heavily somewhere before he becomes finally established.

To answer the correspondent's first question directly, I would say that his plan is feasible in that it is not impossible. He might start as he proposes, and ultimately establish a successful poultry business; but his plan is not feasible in the sense of being advantageous for him. What he desires to gain in health can be as well or better attained by working for someone else on a poultry farm, and he will at the same time be gaining a knowledge of the business, which will enable him later, if familiarity with its details and personal knowledge of its possibilities confirms his purpose of making it a life pursuit, to begin right—intelligently.

This man being a man of caution and sense,

I do not think he will take offense if I say to him that the fact that one has to ask questions of an elementary character about a business, ought to settle negatively, for the time, the question of his engaging in it on his own account. In most lines of business it does. In poultry it does not nearly so often as it ought to.

Now a few words as to the relative advantages of the east and west for poultry keepers. One of the best posted and most level headed poultrymen in this vicinity, and one who is in a position to observe the work of many others, has told me several times that were he a young man he would go west, to grain growing sections where poultry can be produced at lower cost than here, and produce for and ship to the Boston market. His idea, as I understood it, was that the methods used here, applied there would give as good a product as the best grown here, at lower cost, making the margin of profit more than enough greater to offset occasional losses associated with long distance shipping. That would mean, at present, an eastern training for the western poultryman. It is no reflection whatever on the ability of the poultry keepers of the west to say that, on the whole, they are less expert than those of the east. They have given far less attention to poultry culture. The inducements to make poultry an exclusive specialty

to blame if they fail to realize that the manufacturers go to the legitimate limit, at the very least, in claims for their machines, and that testimonials are selected to make a good showing, and do not represent actual average or ordinary results.

Beginning with mongrel fowls is a matter on which I have positive opinions, yet hesitate to express them positively. As far as the fowls are concerned, there are good mongrels and there is poor thoroughbred stock. One who knows something of the stock he buys, and who wants low priced stock, might safely buy mongrels; but usual results from mongrels,—genuine mongrels such as are picked up anywhere, are so poor that the fowls are not cheap. I believe the beginner is safest with good low priced thoroughbred stock. There is plenty of such stock to be had, though the man who is absolutely new to the business will not know where to get it. Another reason for not going in inexperienced.

For reply to the last question I would refer those interested to the article, "The Profitable Combination in Poultry Culture," in F.-P., March 15, 1901, page 139.

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for getting birds into highest show condition; for maximum egg production; for keeping fowls free from disease. Price same as F. F. for Y. C. The Famous Fidelity Foods are for sale by Poultry Supply Dealers throughout the world and by the Pineland I. & B. Co., Sole Mfrs., Box D, Jamesburg, N. J.

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Automatic Fountain for Chickens, Pigeons, Ducks, Hares, Cats or Rabbits. Never freezes; warms hen house in winter; supplies pure water at all seasons; saves time and much labor; increases egg production; is safe durable and perfect; warranted to give satisfaction. Write for Booklet giving prices and lots of testimonials.

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GREEN CUT BEEF BONE,

Price 24 cts. per lb.; lots of 100 lbs., \$2. Grain and Poultry Supplies of all kinds. Samples free.

E. H. DOBLE & CO.,

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THE FRIENDLY LIGHT BRAHMAS.

A Fast Friend of the Light Brahmas Tells Why.



IF YOU WILL grant me the space, Mr. Editor, I should like to tell the readers of FARM-POULTRY why I am a fast friend of the Light Brahma. My friendship dates back some eighteen years, when as a boy I started to breed thoroughbred poultry. That season I started in to breed White and Brown Leghorns and Light Brahmas. The tameness, the size and beauty of those Brahma chicks captivated me, and that first summer of our acquaintance made us fast friends. It was a proud day when I carried some of those chicks to the local fall fair, and saw two blue ribbons pinned upon the coops.

My father shared my enthusiasm for them, (and does yet, for he still breeds them), and drove fourteen miles to exchange cockerels with a Light Brahma breeder. We bred them for some years, until father accepted a call to a distant church, and the removal necessitated our selling them.

Six years ago the opportunity came to experience once more the delights and sorrows of poultry breeding. The first investment was in Barred Rocks, the second in Light Brahmas, and then followed White Leghorns, Black Minorcas, and White Wyandottes. The conclusion was soon reached that the number of breeds must be reduced. The smallness, and cantankerousness, and timidity of the Leghorns decided their fate, and they were excluded from the list. Then the writer accepted a call to his present pastorate, and that meant that most of the fowls would have to be sold. A decision was reached that two breeds and perhaps three of the four would have to go. The Black Minorcas had won us several first prizes, and were a delight to the eye, and good layers, but the butchers objected to their white skin and black plumage and legs, and the cockerels were prone to spoil their beauty by fighting, so with a sigh we decided that they would have to go.

The Barred Rocks and White Wyandottes were then brought to judgment. The White Wyandottes matured a little earlier than the Rocks, and their white plumage and plump breasts made them a little better market fowls. So much in their favor. Then the question of breeding was also considered. To raise good exhibition Barred Rocks we realized that we should have to practice double matings; that of course meant that we should have to keep two pens of that variety, whereas one pen of White Wyandottes would furnish exhibition birds of both sexes, so we let all the Rocks go under the auctioneer's hammer. We sighed when we parted with the Minorcas, but with difficulty suppressed a groan as we bade good bye to the Rocks.

Then came the question of giving up another breed. We had selected the best eight White Wyandottes and the best eight Light Brahmas. We looked at one pen and then at the other. Which one shall be taken, and which one shall be left? We thought over the matter considerably, and at last decided that we positively could not part with the Brahmas, and were not yet ready to part company with the White Wyandottes. We have bred them side by side during the past three years. We are frank to say that we do not regard the two breeds with the same degree of affection. We respect the White Wyandottes, but we love the Light Brahmas. Now for the reasons why we place the Light Brahmas on a pedestal above any other breed.

We read in Prov. 18:24, "A man that hath friends must show himself friendly," and that axiom is true whether applied to man's relation to man, or the relation between man and the lower animals. The converse is also true. A Light Brahma is naturally friendly, and because it shows itself friendly it wins man's friendship. We used to go to visit a poultryman who lived in an adjoining town, and he took pleasure in showing us his different breeds of fowls, but when we came to the Light Brahma pens he would say, "These are my pets."

Another point in favor of the Light Brahma

is that it is one of the hardiest of fowls. Nearly all Brahma chickens will live and thrive if given a fair chance. Their table qualities are excellent, and the flesh of the cockerel does not harden as quickly as other fowls, with the possible exception of Cochin. The Black Langshan is probably the only breed that is capable of laying a finer dark brown egg. The Boston marketmen are very partial to Light Brahma eggs because of their large size and rich brown color, and are willing to pay the top prices for them.

Another point in favor of the Light Brahma is that they are an established breed, and breed true to type. The percentage of culls is small. Our Wyandottes begin laying earlier than the Brahmas, and average to lay more eggs in the year, but we have individual Brahmas which are better layers than any of the White Wyandottes, and believe that Brahmas rightly bred will lay nearly, if not quite, as many eggs in a year as any of the smaller breeds. We do not think that there is any bird as attractive to the eye as a well bred Light Brahma. We heard more expressions of rapture in front of the Light Brahma pens at the Pan-American



FLOCK OF YEARLING TOULOUSE GEESSE.

From a snap shot at birds driven toward the camera.

exposition than before the pens of any other variety, yet truth compels us to say that the Light Brahmas seen at the Pan-American were inferior to those which are annually shown at Boston.

We have read with pleasure Mr. I. K. Felch's recent article in the *Poultry Monthly*, on "How shall I mate my Light Brahmas?" and agree with the views expressed by him and Mr. Theo. Hewes that the present winning type of Brahma is too short in joints, and too long in feathers, and that males which should be disqualified for black in web of feathers of back are frequently awarded blue ribbons. The first prize Light Brahma cockerel at the Pan-American should have been disqualified. He not only had heavy black stripes in the saddle feathers, (the Standard permits only slight dark stripes), but the web of almost all the feathers of the back was a dingy dirty brown. I am aware of the difficulty of getting intense coloring in hackles, thighs, and tails, but do not think that it is wise to spoil the appearance of the back for the sake of securing black flights and solid black tails.

I heartily agree with Mr. Felch and editor Robinson that the exhibition coops furnished at the shows are too small to properly show standard bred Light Brahmas. A Brahma ought not to look like a low down milk wagon, neither should it be so loose feathered as to look like a lady's powder puff. We conclude this article by saying that when the Light Brahma is properly bred it is "a thing of beauty and a joy forever," a feast for the

epicure, a delight to the fancier, and a friend to the financier.

Some boom the Reds, others are after the Rocks, Some are fond of Games, others cheer for Wyandottes, Some prefer the Buifs, others Faverolles, Some think Leghorns fill the bill, or Minorcas black as coals.

Well, let them say their say,
There yet will come a day
When acknowledgment they'll bring
That Light Brahmas are the thing.

Raynham, Mass.

WM. H. NOBBS.

Tough Turkey.

Mr. G. A. Osborn, Leominster, Mass., sends us the following clipping from the *Fitchburg Sentinel*:—

"Inside a turkey purchased at a local market was found the following note which goes to prove that this town had at least a few Vermont turkeys, and also that the Vermont girls are not all 'dense' in their understanding of a good thing.

"To the purchaser of this beautiful bird—Sir: It would be a useless waste of time for me to tell you that this old gobbler was a pet of mine, and that I had nursed him when a chick, for to tell the truth I hated the old cuss for having years ago, when I was a child, chased me about every chance he got, and I have waited these many years for the hour when he should be decapitated, and become



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J. R. Brabazon, Jr. & Co., Box 3, Delavan, Wis.

White and Buff WYANDOTTES

EXCLUSIVELY.
Line bred, and true to name and color. Stock and eggs in season.
FREDERICK W. HOWES,
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14 Females, 1 ck., 1 ekl., Black Wyandottes,
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6 Females, 1 ck., Sherwoods,
5 Females, 1 ck., Black Minorcas,
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12 Females, 1 ck., White P. Rocks.
The above for \$1 each, yearlings, also B. P. Rock pullets for \$1.25, and yearling B. P. Rocks for \$1.
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Send 3 samples and circulars of B. P. Rocks mailed for 5c.

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Entries close Dec. 30, 1901.

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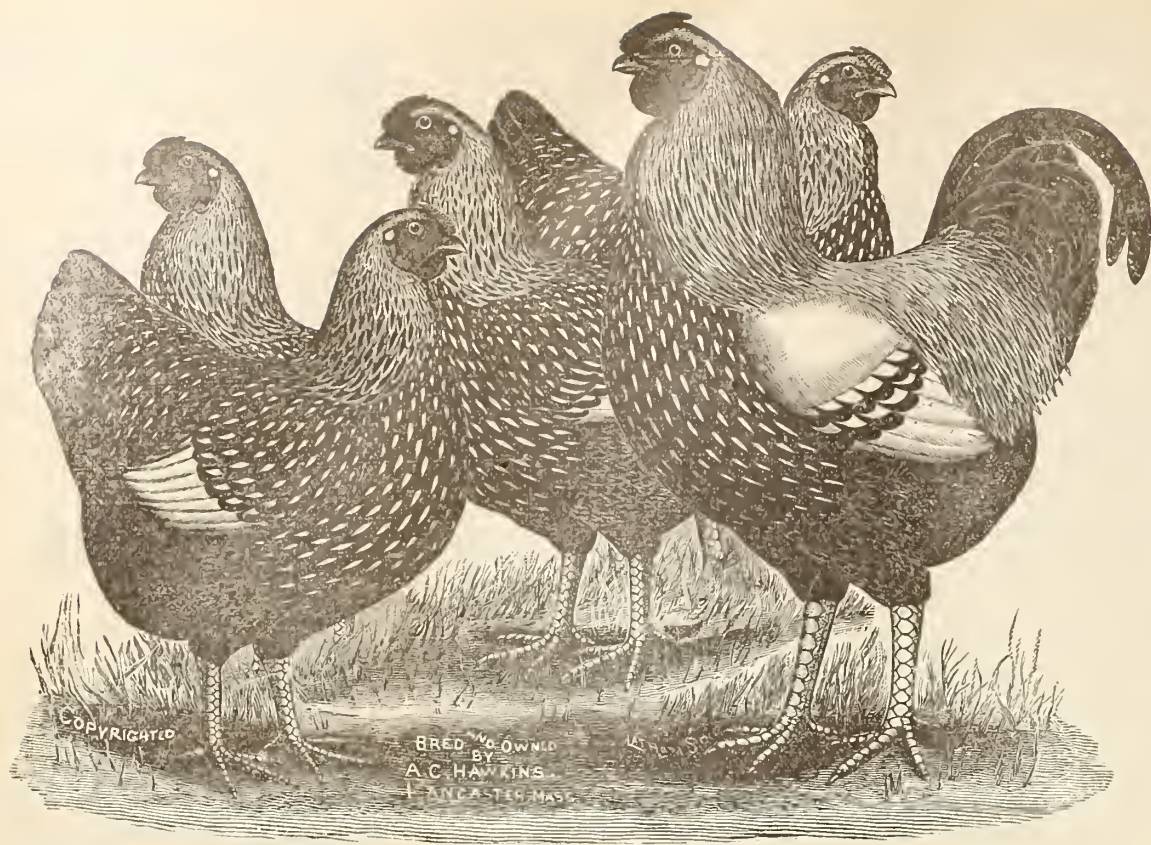
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S. C. R. I. Reds, 1st, 2d and 3d cockerel; 1st, 2d, 3d, and 4th hen, and 2d pen. R. C. R. I. Reds, 5th cockerel and 1st hen. W. P. Rocks, 1st and 2d cockerel and 1st pullet. B. P. Rocks, 4th cockerel and 2d hen. We entered 15 birds and won 15 regular prizes. We have 100 choice **Breeding Cockerels** for sale, including some good S. C. W. Leghorns.

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EARLY SILVER WYANDOTTES.

THE FIRST WYANDOTTES.

Their Struggles For Existence and Fight For a Name.



HERE IS but one fowl that deserves the name of Wyandotte. It has suffered most outrageous treatment, and been robbed of its birthright to boom other blood, thus preventing its own popularity and closer study of its merits by the breeder.

It waded through a list of most discouraging circumstances before it secured a name and a place in our Standard. As early as 1857, the first cross appeared as Sebright Cochins, the first intent being to produce a Cochin bantam with Sebright plumage; but size battled the breeder, and his half Sebright, half Buff Cochin proved more of a fowl than he anticipated. When top crossed with Silver Hamburgs, a fowl desirable in size and color came to light.

Again the Sebright-Hamburg was used with Dark Brahmas, and a fowl similar in color appeared. When the two families had been amalgamated with a degree of success, they were offered to the American Poultry Association, in 1878, as American Sebrights, but the breeders could not agree on the character of comb and shanks, the Northampton breeders contending for a pea comb and feathered shanks, while the western New York fanciers held for a double comb and smooth yellow shanks. But the majority of the members objected to the name as too confusing, as the

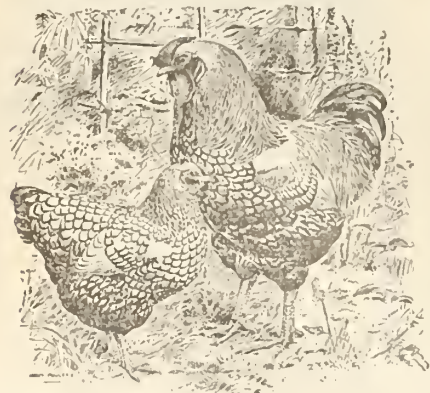
in the current advertisements under all the following names: — Eurekas, Hambletonians, Sebright Cochins, American Sebrights. Representatives of all the factions appeared at the American Poultry Association meeting, at Worcester, in 1883, when a compromise was made upon the new name, *Wyandottes*, and a standard made and accepted for them, Mr. Fred A. Houdlette, of Waltham, Mass., being the breeder who had the honor of presenting it.

But under the name of American Sebright there had appeared at the Providence, R. I., exhibition in 1879, as remarkable a trio as has ever been exhibited since; with open centers covering full two-fifths of the web surface, with the lacing a metallic black. The male had a wing bar a blue black, as rich in purple sheen as I have ever yet seen, with the white spots through the center, with a breast with feathers having pure white centers covering fully one-half of the surface. The pullets had breasts laced to the throat, with backs two-fifths white in the webs. They were white and metallic black in color throughout.

Today the breeders are swinging to the very extreme of white in plumage, and demanding a narrow black edging to the feather, which is robbing the plumage of the metallic black so necessary to give the desired and sharp contrast in color which was and should be the mark of beauty in the breed today.

For a short time after its admission to the standard no breed had a more lively boom; nor has a breed ever suffered at the hands of the lucksters as did this one. In three years they were completely buried by the evils thus brought upon them. This with the robbery of their name, which divided their interests, in a commercial sense with the Golden, White and Buff interlopers, has been a formidable setback to this breed, which always had the merit of being the best, most plump and favorite broiler and a layer of many eggs. The only drawback it ever had was unevenness of size, and color of eggs. In these respects it has in late years been greatly improved.

Once in every ten years any breed of merit is sure to come to the front with renewed force and appreciation, and generally this happens right after we have had a season or two of mongrelism, seasons when crude products are being forced to the front as breeds. These failing in merit causes the fancier to turn his mind back to those breeds in which merit was discovered. Thus do we keep alive those breeds that have beauty and merit combined.



MODERN IDEAL SILVER WYANDOTTES. name *Sebright* was so closely identified with the bantams. These complications caused the rejection of the breed at that time.

The contention over the name and standard caused the breed to remain in an unsettled state from '78 to '83; and during that time the discussion for a name caused them to appear

Let either of these conditions fail and a breed sinks into the obsolete list, never to be resurrected.

The Silver Wyandotte has waited long for its right to be acknowledged. I look for a series of years of favor for it—as it deserves.
I. K. FELCH.

Some people have an idea that to win the prizes in a poultry show all that is needed is to have the best birds. An honest judge will award them all that they are entitled to. This is not strictly true. As in a horse show, or almost any other show, more goes by good looks than by favor, and often either will win away from

greater merit. Careful grooming and preparing, so as to make a good show, will attract the eye of the judge, as well as of the general public, and the power of discrimination that can detect beauty under a coat of dirt, or honesty under a ragged coat, is given to but few.
—*American Cultivator*.

That Board of Health Should Wake Up.

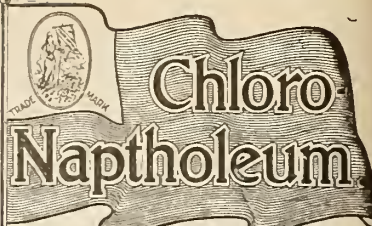
As there is nearly always more or less poultry arriving which is out of condition and more or less defective, and as the board of health records show little or no dressed poultry seized by their inspectors, we asked a well posted poultryman what had become of this poor poultry, and he replied in substance as follows: "We never have any trouble in disposing of low grade stock. Some regular dealers have an outlet for it, but as a rule it goes to peddlers who are always around looking for 'cheap' stock. I do not know how they dispose of it, but one thing I have noticed is that when they cannot get low grade poultry they buy fish or other articles which can be picked up at a low price. We really get more for this cheap poultry than it is worth. Then again we always have the canners to fall back on, but they have to have pretty good stock, and are willing to pay as high as 6¢ a lb., though they buy as cheap as possible, and often pick up considerable at lower figures than these."

The above from the *New York Produce Review*, suggests that the board of health in that city needs a stirring up. Perhaps it will get one, as the result of the reform movement that will make its influence felt in the poultry market. One would think enough poor poultry that was not unfit for food was received to supply the demand for cheap stuff. It would be unreasonable to expect to have all of the vast amount of dressed poultry shipped arrive on the market in suitable condition for food, but if all such were condemned and destroyed, the effect could not fail to be to promote the use of better methods and greater care in preparing poultry for shipment.

A Confession.

After we visited many of the most noted breeders of poultry in the east, and inspected their poultry and learned as much as possible of their way of producing birds as near to standard requirements as is possible to get them, we made up our mind that the editor of the *N. P. J.* was a long way from being in the band wagon as a poultry breeder. No, dear reader, we do not know it all, but we keep our eyes and ears open, and hope to have better stock than ever before on our poultry farm by the end of another year.—*National Poultry Journal*.

IT KILLS LICE.



For Poultry Houses.

Urey, Pa., May 20, 1901.
"Send me another gallon of your Chloro-Naphtholeum. I have used it in my chicken houses, also on dogs for fleas, and it cannot be equalled."

HENRY BALL.

Chloro-Naphtholeum is the best non-poisonous disinfectant.

Ask your dealer for Chloro-Naphtholeum, or we will ship, prepaid, 1-gallon can, \$1.50. Special prices on larger quantities.

Free. Our book, "Poultry Diseases," sent free on request. Agents wanted.

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Winners for 10 years at Madison Square Garden, N. Y., Boston, Philadelphia, Washington and Hagerstown.
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To take the place of Beef Scraps. Price from 100 to 500 lbs. \$2.00 per cwt.; 500 to 1000 lbs. \$1.75 per cwt.; 1000 lbs. and over \$1.50 per cwt.
Green cut Bone, Oyster Shells, and Beef Scraps. Steamed Meat Biscuits, per lb. Send for catalogue.

BARTLETT & HOLMES,
P. O. Box 627, Springfield, Mass.

CHALLENGE STRAIN OF Light Brahmas

Are noted for great laying as well as prize winning. At Boston and Philadelphia, Pa., 1900 and 1901, my birds won 47 prizes, including 1st cock, and 1st cock-owl. To make room I will sell cockerels and pullets for \$2 and \$3 the next 30 days. Write quick and get first choice.

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Until you get a catalogue of the Shaub Compartment Brooders and Exhibition Coops. We have something to interest you. Send 4c. in stamps for illustrated catalogue. Address:

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If a Chick is in an Egg

a Victor Incubator will bring it out and endow it with health and cleanliness to begin life on. That means earlier to market and a larger profit. The various improvements of the

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for heat, ventilation and moisture are self-regulating and the eggs are turned by the simplest device known. Thousands in use, without a complaint. Simplest, most durable and cheapest first-class hatcher. Guaranteed positively as represented or money refunded. Catalogue telling how to get increased results from almost any machine, 6 cents.

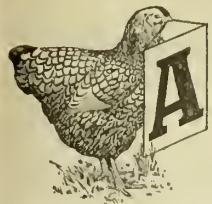
GEO. ETEL COMPANY,
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We pay freight.

LOOKING FOR BARGAINS?

Then write me for anything wanted in the Buff P. Rock line. W. T. GREENE, Hopkinton, N. H.

How He Cleaned Out the Lice.



ABOUT TWO years ago I moved to an old house which had but a short time before been vacated by tenants whose lease had expired. As is not unusual in

such cases, I found the place in worse than dilapidated condition. There was on it a hen house, capable of accommodating two hundred head of poultry. I soon had that number of fowls in it, but had not had them long when I would have to hunt around every night and catch some of them and put them in the house.

As time went on I found the number determined to stay out nights increasing, and being somewhat green in the business, I could not account for it until one day when making repairs to nests in the poultry house I got completely covered with hen lice. An examination showed that the place was swarming with the mites. The hens stopped laying, and seemed to spend most of their time dusting and picking themselves.

day; the minute you stopped fanning, the cause came back. I was completely discouraged, and set my head to work as to what could be done to overcome the pest.

I wanted a remedy that would last longer than while being applied. Finally I hit upon an idea of my own which I hereby introduce to whoever will benefit by it. After using it I sold out my entire stock to a poultryman of some thirty years experience, and he, after examining a number of the hens, pronounced them as clean and free from lice as any he had ever seen.

Take an ordinary common sized cotton clothes line; unbraided it so that it will make one-third or one-half when flattened out; cut in pieces about twelve inches long, and wind each once around the roost, letting the two ends pass down into the neck of a bottle about two-thirds full of kerosene, the bottle being suspended from the roost by a string fastened around the neck. The clothes line acts like a wick, drawing the oil up out of the bottle, and it being saturated with the oil, no louse can help coming in contact with it when he attempts to go to the hen at night, or when he

which reproduce at all faithfully, from any place where fowls are not subject to the influence and selection of an organized "fancy." We have never been able to swallow the doctrine of "original breeds" as applied to anything now known in domestic fowls. To us they are all made breeds—and as varieties mostly made in America and England. The general evidence supports this view, even though in many cases we cannot make a satisfactory demonstration of it as applied to each particular variety. The making and modification of breeds is such an easy and brief process when a high degree of superficial excellence is not exacted, that to us it has always seemed passing strange that so many should believe in and attach such importance to "originality" of a breed, purity of blood, etc. There are few stocks of birds free from some infusions of foreign blood, and most stocks show very strong tendencies to revert at times to types which suggest too close alliance with something "different" that was very much in evidence about the time they first appeared.

This Beats All.

A correspondent signing the name of J. Q. McNaughton, New York, writes to the *Albany Journal*:—

"Two years ago, in a lecture before the chemistry class in the medical university where I was a student, the professor, while analyzing an egg, stated that the reason hens did not lay as many eggs in winter as in summer, was that they could not get the necessary food to produce the yolks of eggs, and if farmers would give their fowls powdered red albumen in winter, they could have as many eggs as in summer. I was interested in the subject, as my father and brothers are farmers, so after the lecture I asked the professor in what quantities and how the albumen should be fed. He said to take a pound of powdered red albumen and mix it with one pound of black or red pepper, ground fine. Then every morning mix some ground feed, half wheat bran and half corn meal; to each quart of this mixed feed add two teaspoonsful of the mixed pepper and albumen, then add enough hot water to dampen the feed, not to make it sticky. Give a quart of this hot feed to each 12 hens every morning, and a quart of whole grain, wheat, or corn, or both mixed for each 12 fowls every morning, and in two weeks your hens will begin to lay, and lay all winter if you feed them this feed. The professor said he had kept a pen of Game fowls for fifteen years, he always fed them this feed, and always had an abundance of eggs.

"I wrote to my father and brothers, giving them this recipe, and they and several neighbors tried it last winter with complete success. The coldest weather did not stop their hens laying. My father keeps about 100 Light Brahmas. Winter before last they did not lay at all, but on this feed last winter they averaged over 200 eggs a day all winter. One thing the Brahmas used to do to a finish, that was set, but last spring father could not get a hen to set until he quit feeding this feed.

"My brother bought 250 young hens last September, and I got a letter from him today saying he began to give this feed two weeks ago, and is now getting over 200 eggs a day. I have a great many friends back home that read your paper, and thought I would have you print this recipe, so that they and all your readers that keep poultry could be benefited by its use, for hens may as well be laying all winter as to be idle; but a hen is simply a machine, and if you do not supply the material the hen cannot lay the eggs. You can get pepper at any grocery for 30 cents a pound, and red albumen at any drug store for 60 cents a pound, and a pound of each will feed 50 hens for more than a month, and you will get a 100 dozen eggs you would not get without it, and 100 dozen eggs in winter are worth, at least, \$20, and \$20 for 90 cents worth is surely a big profit."

The surprising thing about the above is that the "professor" did not patent his discovery. Had he done so, and worked its introduction properly, he would now be enjoying an income in comparison with which his stipend at the university would be insignificant—that is, of course, on the supposition that results given were actually obtained. People who think it probable that they were, will doubtless create a brisk temporary demand for red albumen.



SOME OF THE OTHER "FRIENDLY" FOWLS.
Photo. by E. E. Bartlett, Newburyport, Mass.

I soon came to the conclusion that the lice were the cause of the hens staying out nights, as well as of the dropping of the egg yield. I applied every remedy I could learn of. Some worked all right for the time being, but it was something like fanning oneself on a hot

leaves her in the morning. Hens with scaly feet and legs are also soon cured of their trouble when this method is used. Bottles can be suspended three or four feet apart on the roosts. MURDOCK A. WEATHERS.

Manchester, N. H.

In Ships That Did Not Come.



SHALL WE ever know the facts about the origin of the Light Brahma? In a recent issue of the *American Fancier* Mr. John Rumbold says:—

"There has been since the first fowls were bred in 1849 a controversy over their origin. Sometimes this has been carried on in a very bitter spirit, and common sense has been entirely overlooked. Mr. Editor, there is a way to establish the truth in a measure as to the so-called Chamberlain-Cornish theory, or to refute it; it is either a fact or a fraud. Which? Being connected with the government service for years, I have a knowledge of some facts that shouldn't be overlooked by Mr. Felch, and I hope he may give this view some consideration before he goes too far in his history of origin, etc.

"It is a fact that in every port in the United States that all vessels must make entry, and no vessel is exempt from this duty, and this is no new law or practice, but is as old as the government itself. Now, sir, in defense of the Burnham theory against the Chamberlain-Cornish story, I wish to go on record as saying there is no record in New York of any ship or vessel of any kind from India having

entered that port in either 1846, 1847, or 1849, which the bolsterers of that side of the question have successively claimed to be the date of the importation of the original Light Brahmas, and there is no denying the fact that there being no such entry stamps the whole story as a fake and a fraud of the most daring kind. And again, isn't it singular that if the originals had been from India nothing like them had ever been seen before or since the time of these two birds that had been ruthlessly jerked from their native shores? Some time in the fifties my father secured some birds known as Chittagongs, and except for the pea combs they were so nearly the type of the present day Brahmas there was or is no particular difference between the two—except the difference brought about by many years of scientific breeding and selection. The Brahma has the same type of all other Chinese breeds, and plainly shows it to have had the same blood origin, but the fact remains that the first simon-pure Light Brahmas were bred in Massachusetts in the year 1849."

We must confess that personally we are not disposed to place much confidence in reports of receipts of birds of distinct breed type,



COLBY'S Blue Barred Rocks,

Have scored, and have produced many birds that scored 92 1-2 to 95 1-2 during the last 15 years, and won 1st in the large shows of America.

If you want to win, or breed the best I can please you in price and quality.

Ask for what you want, and mention Farm-Poultry.
F. E. COLBY, Bow Mills, N. H.



The Sure Hatch

Hatches Sure,

is the verdict of thousands who use it. Made right and works right. Anyone can run them, because they run themselves. Anyone can own them, because the price is right. Machine and its work guaranteed for 10 years.

Our Little Hatchit Incubator

is a 75 egg machine, made on the same principle as the Sure Hatch, same material and construction throughout. After a hatch is over, remove egg tray and the same machine broods the chicks. For fanciers or to those raising poultry on a moderate scale the Little Hatchit is unequalled. Guaranteed as above. Big catalogue full of photo views and honest poultry information. Sent free. When writing address nearest office.

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EVERY HEN



Will lay this winter if you feed your fowls Pioneer Clover Meal. It makes possible summer conditions in the winter. It supplies the fowls with a perfect substitute for green grass and clover.

EVERY POULTRY BREEDER

Knows the wonderful egg making qualities of green clover. Nothing better in the world. Pioneer Clover Meal is simply the purest of green cured clover hay ground to a fine meal, similar to cornmeal. It is the only granulated clover meal in the world.

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Wants fresh eggs now, and he will pay any price to get them. Feed Pioneer Clover Meal and supply his wants. Thousands of poultry raisers all over the world are making money by using it.

AWARDED A SILVER MEDAL

At the great Paris World's Fair an article of greatest merit to poultry breeders, Pioneer Clover Meal is sold only in printed white cotton bags—50 lbs., \$1; 100 lbs., \$2; catalogue and sample free.

Bennett & Millett Co.,



GOUVERNEUR, N. Y.



ROUND ABOUT.

A Winter Day Visit to a Practical Poultry Farm.



EVER SINCE last April, when we received an interesting contribution from Mr. Chas. F. Thompson, telling how they managed their stock, I have been intending to visit the poultry farm of Messrs. Chas. F. Thompson & Co., at Lynnfield Center, Mass. Had it been further away I might have made my visit earlier, but being only three miles from my house it seemed one of the places where I might drop in at any time, and as is often the case under such circumstances, the "any time" was a long time in coming. But on December 5th I left the office at a little before noon to spend the afternoon at this farm.

Mr. Thompson met me at the station, only five minutes walk from the farm. This farm is one of the best located and best equipped in this section. It contains fifteen acres of well drained sandy soil that is light, but still shows good productiveness after a few applications of hen manure. Four years ago when Mr. Thompson bought the farm it was almost entirely unproductive. The soil had been so exhausted that nothing would make a respectable growth on it. A very light crop of hay was secured, hardly worth the cutting, for there was only about half a ton of it, enough to feed a horse or cow a few weeks. This year the aggregate value of the field and vegetable crops produced on the farm was about two hundred and fifty dollars. There was hay enough to feed the cow and horse for a year, hungarian grass enough for green food for the hens during the winter; straw and corn fodder for litter in the houses, and considerable

bilities of developing the crop producing capacities of the land by utilizing the hen manure on it, and by running chickens over it, but he certainly has a farm well adapted to the utilization of the manure. There is but little of the land that cannot be worked and made productive, and it was in good condition on the surface to begin with, not full of boulders, and covered with undergrowth.

Mr. Thompson and his partner, Mr. C. E. Embree, are both men approaching middle age. Mr. Thompson was in the shoe business, as manager for a number of years, and after



RESIDENCE OF C. F. THOMPSON & CO., LYNNFIELD CENTER, MASS.

that in the insurance business until his health became impaired as the result of close application to desk work. Then as so many others do, he turned to poultry keeping for outdoor employment, bought this farm, and began to equip it for poultry and gradually stock it up.

originally intended for a brooder house, and, perhaps forty feet of the end near the cook house is occupied by a Prairie State sectional brooder. The rest of the house has been divided into pens as in the other houses.

In each of those houses there are twelve pens, each consisting of roosting room eight by twelve, and scratching shed twelve by twelve, and each occupied by thirty fowls. There is a walk three feet wide at the back of each house running its entire length. The floors of the scratching sheds are littered with corn fodder, which, by the way, is here considered about the worst possible material for scratching, because when the hens work it toward the back of the sheds, and it has to be forked forward it sticks to the fork in a most exasperating way, and because it is too coarse. As Mr. Thompson in the article referred to above told of their method of feeding, I need not repeat it here.

About half the stock on the farm is kept in these long houses; the remainder is housed in a few shorter houses somewhat similar, in colony houses, and, a part, in pens on the second floor of the cook and feed building. Into these quarters, which have no outlet outdoors, only culls go. This cook house is unusually large and roomy, having a full cellar under it, two high studded stories and a large loft above. The original intention was to use the entire second floor for the storage of feed, but that plan has been in part abandoned because it was less convenient to have grain up here, and because it was found that the building was not strong enough to carry a heavy load of grain on this upper floor. This building was one of the first on the plant, and we may note with interest, as an evidence of thrift on the part of the owner, that in erecting it he considered the possibility of the poultry business not being successful, and so planned it that if such should be the case this building could easily be finished up for a dwelling house, which could be easily rented. As the poultry business has turned out it might have



BIRD'S-EYE VIEW OF FARM.

Showing Long Houses and Building Used for Cooking and Storage.

quantities of cabbages and turnips. The production of these things being of course, merely incidental—farming an adjunct of poultry keeping.

One little gravelly knoll was pointed out where four years ago the vegetation was very sparse. This year there were grown on this ground, first a crop of wheat cut before it was ripe for hay for litter, then a crop of corn from a broadcast sowing of seed for the same purpose. Corn grown in this way is not expected to produce much but stalks and leaves, but this, though late planted and close together, produced small ears enough to make a good contribution toward the food of the fowls for a short time after the corn fodder was put in the pens. I don't know whether or not Mr. Thompson considered the possi-

knew thoroughly, and with whom he felt that confidence would not be misplaced. The result was a partnership arrangement of mutual advantage.

The bird's eye view of the farm reproduced in this connection shows the principal buildings, the three long poultry houses, and the building used for cooking and storage purposes, which building also contains the office. The long houses are built on the open frost scratching shed plan, with muslin drop curtains. As the scratching sheds recently added to some of the small colony houses are made with one window in the front and the curtain (door) of half-inch boards, it would appear that the muslin curtain arrangement had not given full satisfaction. Two of the houses are each two hundred and forty feet long by sixteen feet wide; the third house, the rear one, is two hundred feet long. This last house was

Hawkins White Rocks

Win at all the big shows from Maine to Texas. They have won more prizes at

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Than all other strains, and are THE BEST.

A. C. HAWKINS, Lancaster, Mass.

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WILSON'S New Green Bone, Shell and Vegetable Cutter for the Poultryman.

Also Bone Mills for making phosphate and fertilizer at small cost for the farmer, from 1 to 40 horse power. Farm Feed Mills grind fine, fast and easy. Send for circulars. WILSON BROS., Sole Mfrs., Easton, Pa.

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A SPECIALTY. Prize winners at the largest shows. Stock for sale in yearling hens and cocks, early hatched cockerels and pullets. If you are looking for A 1 breeders write to

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in the orchard, in the hen house, or in the field. Wherever disease and insects thrive and feed, the

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will fight and win the battle for you. Don't give up and go on losing money, but write now and get the book that tells how to kill 'em all, cure 'em all. We send it free. Twelve varieties of sprayers. MADE ONLY BY THE DEMING CO., SALEM, OHIO. Write us or our Western Agents, HENSON & HUBBELL, CHICAGO, ILL.

200 CHOICE COCKERELS,

At \$1.50, \$2, \$2.50, \$3 and \$5 each. Fine breeding trios \$5—White and Brown Leghorns, White Wyandottes, Rhode Island Reds; Barred, White or Buff Rocks. No one will sell you better birds for the money. 247 premiums the last three years, including Boston, Hartford and West Brookfield. Agents for best poultry fencings. GEO. A. CHAPIN, Hampden, Mass.

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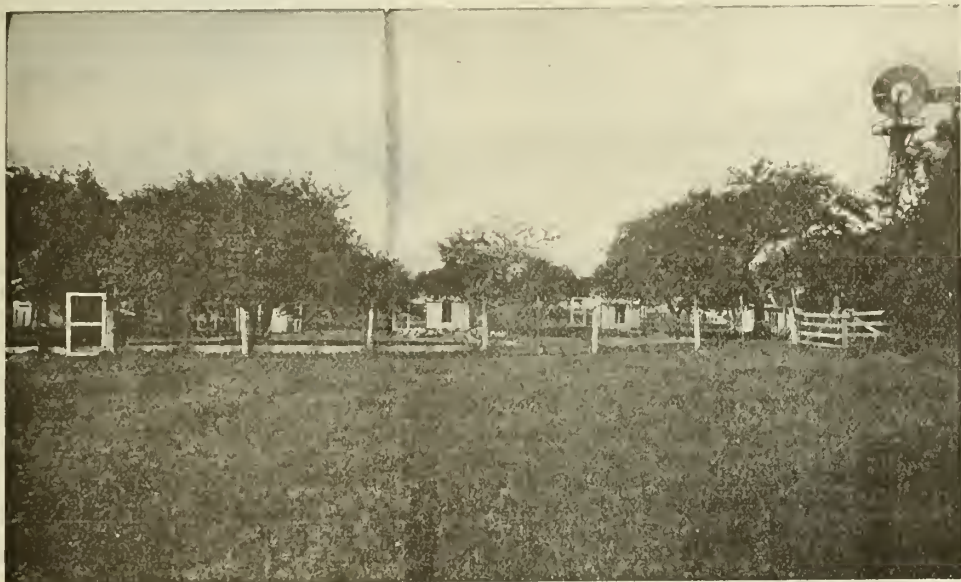
been better not to have planned for this alternative, but to have built a feed and storage building designed only for that purpose. It has indeed been found advisable to build a one story shed for grain, with vegetable cellar underneath, and this is a most economical structure. The foundation is of old railroad ties set on end, the lower end just enough deeper than the floor to prevent their slipping with the weight of the building above them. This cellar is at present well stocked with vegetables, cabbage, turnips, etc., part of which were grown on the farm, and part bought. It is the intention to grow more and more of such food on the farm each year.

On the first floor of the cook house, the dimensions of which are twenty-eight by forty-two, are a large feed cooker and a cook stove, two bone cutters, work benches, bags of ground feed, etc. At the east end two rooms

for eggs at the time was forty-five cents a dozen.

While Mr. Thompson was alone in the business, eggs were sold at wholesale, and surplus poultry to the hen carts, but since the partnership with Mr. Embree was formed, a good retail route for eggs and poultry has been built up, and it is anticipated that before long this may be so much extended that it will take much more than the product of the farm, in which case arrangements will be made for buying reliable goods for this trade. In advertising for this part of the business, a neat little circular has been used. This circular contained several good views of the farm, a very brief description of it and the business, directions how to reach it, and a cordial invitation to visitors to call and inspect the farm.

The trade in eggs and stock for hatching



VIEW SHOWING PART OF TWENTY-FOUR OUTDOOR DOUBLE SECTION BROODER HOUSE

are partitioned off, the smaller one being used as an office. In the larger several incubators are operated, and one incubator stands in the office. On this floor also the eggs are packed. The cellar of the building was used for awhile for an incubator cellar, but an opportunity occurring to rent it for storage purposes, the incubators were moved upstairs, where they have worked satisfactorily.

The hatching and rearing are partly by natural, partly by artificial methods, the former, though less extensively used, being favored as producing the finest chicks. For the artificially reared chicks out door double section brooder houses are used mostly, only a few being kept in the brooder end of the two hundred foot poultry house. This year about four thousand chicks were raised. Speaking of raising chickens, Mr. Thompson told me of a farmer in Maine who had raised a lot of chickens for him this year, and had been remarkably successful with them. This man has a large farm which gave the chicks good and abundant forage, and in addition he was able to get two very good articles of food at very low prices. In the section in which he lives both dairying and canning are extensively carried on. Skim milk could be bought for a few cents a can, and defective cans of corn could be bought very cheap. So these chickens got lots of skim milk and lots of sweet corn along with their grain and range food, and they grew and thrived wonderfully.

Of the nearly two thousand hens now kept on the farm, the greater number are Rhode Island Reds, though there is quite a large stock of White Wyandottes, and there are a few pens each of Barred Plymouth Rocks and R. C. White Leghorns. Some five hundred chickens grown on the Maine farm had not yet been brought home. The egg yield was about three hundred a day, (about fifteen per cent), not as good as last year, but I think large enough to be called an ordinary good egg yield for the season. The price received

and breeding purposes was begun only last year. Mr. Thompson says the first year's results considerably exceeded their expectations, especially in the sales of incubator eggs. They were more fortunate in the matter of fertility of eggs than most last season, which



VIEW OF ONE OF THE LONGEST POULTRY HOUSES.

may have been in part due to the number of males used. In the pens from which incubator eggs were sold were thirty or less hens with which three males were used on alternate days.

In conclusion, it may not be out of place for me to give directions how to reach this farm, which would certainly interest many who write to me, or call, asking where to go to see good poultry farms. Lynnfield Center is on the Newburyport branch of the Boston and Maine railroad, thirteen miles from Boston, (North station.) The farm is five minutes walk west of the Lynnfield Center station.

Recently the price of grain has been soaring skyward. Good judges among the jobbers to poultrymen, however, predict that prices will not stay up long.

Troy, Ala., Show.

This was the largest show ever held in Alabama, the entries numbering eight hundred and fifty-three. White Wyandottes, over one hundred in number, were the largest class. The show was judged by Dr. S. T. Lea and E. Dunstau.

Awards.

ANDALUSIANS.—All to Belmont Farm, Smyrna, Ga.
LIGHT BRAHMAS.—J. F. Paul, Troy, 1 ek; 1, 3 hen; 1, 3 ek; 1, 3 pul; 1, 3 pen. Samuels Poultry Yards, New Orleans, La., 2 ek; 3 pul; 3 pen. Belmont Farm, 2 hen; 2 ek; 3 pul; 2, 3 pen.

BUFF COCHINS.—Samuels, 1 ek; 1 pul. Belmont Farm, 2, 3 ek; 1, 2, 3 hen; 1, 2, 3 ek; 2, 3 pul.
Partridge Cochins.—To Belmont Farm.

CORNISH INDIAN GAMES.—L. E. Verdey, Augusta, Ga., 1 ek; 2 hen; 1, 2 pul; 1 pen. C. S. Alfred, Elba, Ala., 2 ek. D. Gatenfried, Seale, Ala., 1 hen. Mrs. H. L. Solomon, Troy, 3 hen. W. A. Belmonty, Seale, Ala., 1 ek. C. J. Ross, Troy, 2 ek.

WHITE INDIAN GAMES.—A. V. Phillips, Albany, Ga., 1 ek; 3 hen; 1, 3 ek; 2, 3 pul; 1, 3 pen. M. F. McBryde, Troy, 2 ek; 1, 2 hen; 2 ek; 1 pul; 2 pen.

S. C. BROWN LEGHORNS.—Belmont Farm, 1, 2 ek; 1, 3 hen; 1, 3 ek; 2 pul; 1 pen. Hollywood Poultry Farm, Crescent, La., 2 hen. J. O. Benton, Troy, 3 ek; 1, 3 pul; 2 pen. Samuels, 3 pen.

S. C. WHITE LEGHORNS.—Samuels, 1 ek; 2, 3 hen; 1 ek; 2 pul; 1 pen. Belmont Farm, 2, 3 ek; 1 hen; 2, 3 ek; 1, 3 pul; 2, 3 pen.

R. C. White Leghorns.—To Belmont Farm.

S. C. BUFF LEGHORNS.—P. H. Walker, Cleveland, Tenn., 1 ek; 1 hen; 1, 2, 3 ek; 1, 2, 3 pul; 1, 2, 3 pen. Belmont Farm, 2, 3 ek; 2, 3 hen.

S. C. BLACK MISCELLANEOUS.—Samuels, 1 ek; 1, 3 hen. Belmont Farm, 2, 3 ek; 2 hen; 1, 2 ek; 1, 2, 3 pul; 1 pen.

BARRED PLYMOUTH ROCKS.—J. K. Otley, Atlanta, Ga., 1 ek; 2 hen; 1, 3 ek; 1 pul; 1 pen. T. J. Rountree, Cleveland, Tenn., 2 ek; 3 hen; 2 ek; 2, 3 pul; 2 pen. Belmont Farm, 3 ek; 1 hen; 3 pen.

BUFF ROCKS.—Belmont Farm, 1, 2 ek; 1, 2, 3 hen. T. J. Webb, Parrott, Ga., 1, 3 ek; 1, 2 pul; 1 pen. J. H. Crowell, Parrott, Ga., 2 ek; 3 pul.

WHITE PLYMOUTH ROCKS.—Otley, 1 ek; 1 ek. C. H. Cowart, Troy, 1 ek; 3 hen; 2 ek; 1, 3 pul; 1 pen. Belmont Farm, 2, 3 ek; 3 ek; 3 pen. J. L. Gilmore, Troy, 1, 2 hen; 2 pul. S. D. Wright, Columbus, Ga., 2 pen.

Golden Bearded Polish.—All to Samuels.

White Bearded Polish, and Buff Laced.—All to Belmont Farm.

White Polish, plain.—All to J. B. Randall, Ingleside, La.

W. C. B. Polish.—All to Samuels.

BUFF WYANDOTTES.—Belmont Farm, 1, 2 ek; 1, 2, 3 hen; 3 ek; 3 pul; 2 pen. Webb, 1, 2 ek; 1, 2 pul; 1 pen.

SILVER WYANDOTTES.—W. A. Mahaffey, Birmingham, 1, 2 hen; 2 pul; 1 pen. W. O. Emfinger, 1, 2 pul.

WHITE WYANDOTTES.—Wood E. Moore, Albany, Ga., 1 ek; 3 pul. Mrs. H. J. McCafferty, Birmingham, 2 ek; 3 ek; 2 pen. Belmont Farm, 3 ek; 3 hen; 2 pul. West Elba Poultry Yards, Elba, Ala., 1, 2 hen; 1 ek; 1 pul; 1 pen. Hollywood Farm, 2 ek; 3 pen.

Houdans and Langshans.—All to Belmont Farm.

BUFF COCHIN BANTAMS.—Belmont Farm, 1, 3 ek;

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Omaha, Neb.

GENUINE BARGAINS

I have decided to sell my entire stock of the following varieties, including all of my prize winners:

Light, Dark, White and Buff Brahmas; Buff, Black and Partridge Cochins; Black, Golden, Silver, Columbian, and Buff Laced Wyandottes; Black Langshans; White Rocks; American Dominiques; White Wonders, and Sherwoods; Leghorns; Hamburgs and Polish, in all varieties.

Blue Andalusians, Black Spanish, and Red Caps.

Black, White, and R. C. Black Minorcas, Anconas, and Buff Orpingtons.

These birds have won hundreds of first premiums at the largest shows.

Here is a chance seldom offered to get an exceptionally fine lot of show birds at the price of ordinary breeders.

Hazelmere Poultry Yards,

W. B. RICHARDSON, Prop.
Knightsville, CRANSTON, R. I.

SLADE'S

Brown Leghorns

Can Win for You.

If you are going to show why not show stock that can win?

I won at the great N. Y. state show last Sept., 1st cockerel, 2d cock, and 2d pen. At Elmira, N. Y., last winter, I won 8 prizes on 12 entries, including 1st on both cock and cockerel. I won 1st and 2d cockerel at the same show in '99. The 1st cockerel at Wallingford, Conn., and 3d at Pittsburg, Pa., last winter were bred by me. Notice this record on cockerels. Only in one instance have I ever failed to win 1st or 2d on cockerel wherever shown. My stock will be seen in the best shows in America this season. I am selling cockerels now that will be sure winners at the big shows. No one can sell you better ones at moderate prices. Write me about them today.

SPECIAL 100 grand breeding cockerels at \$2 each. Best value you ever saw at the price.

H. W. SLADE, Whitesville, N. Y.

POROUS CARBON WICKS

GIVE A BRIGHTER LIGHT

Than any other wick; don't smoke; money will be refunded if not satisfactory. Sample 10 cents. Send orders only to S. G. ROBINSON, Printer of Farm-Poultry, 27 Atlantic Ave., Boston.

The Rome, N. Y., Show.

This show is reported an all around success. The poultry institute held in connection with it was a popular feature. Lectures or talks were given by M. Davenport, T. F. McGrew, Dr. E. M. Santee, E. S. Comings, J. E. Rice, Dr. A. A. Brigham, F. E. Dawley, and G. L. Reider.

Awards.

Exhibitors are from places in the state of New York unless otherwise stated.

BARRED PLYMOUTH ROCKS.—Fred H. Rivenburgh, Oneida, 1, 2, 3 ek; 1, 3, 4 hen; 2 ek; 1 pul. M. Hauss, Jr., Rome, 4 ek. Arthur G. Bonek, Frankfort Hill, 2 hen; 2, 3 pul. C. E. Hubbell, Westmoreland, 1 ek. John Bartik, Maynard, 3, 4 ek. B. C. Putnam, Gloversville, 4 pul.

BUFF PLYMOUTH ROCKS.—Henry R. Ingalls, Norton Hill, 1 ek; 3 hen; 2 ek. John S. Gardner, Lee Center, 3 ek. H. W. Teelm, New London, 2, 3, 4 ek; 4 hen; 1, 4 ek. C. E. Hubbell, Westmoreland, 1, 2 hen; 2, 3 pul. E. T. Garlick, Rome, 1, 4 pul.

WHITE PLYMOUTH ROCKS.—G. L. Reider, Rome, 4 ek; 3 hen; 2, 4 ek. B. D. Miller, Peterboro, 3 ek; 1, 2 pul. John R. Mullin, Rome, 2 ek; 3 pul. H. Barnard, Jr., Rome, 1 ek; 3 ek; 4 hen. C. E. Hubbell, 1 ek; 4 pul.

SILVER WYANDOTTES.—George A. Munson, Smyrna, 2 ek; 2 hen; 1, 2 ek; 1, 2 pul. F. G. Wilcox, Rome, 1 ek; 1 hen; 3 ek; 3 pul.

Partridge Wyandottes.—All to Edmont Poultry Farm, Durham.

WHITE WYANDOTTES.—H. D. Thompson, Wheeler, 2 ek; 3 hen; 2 pul. Dr. J. H. Glass, Utica, 1 ek; 1 hen; 1 ek; 1 pul. F. H. Coventry, Ridge Mills, 2 hen.

Buff Wyandottes.—All to Coventry.

AMERICAN DOMINIQUE.—Dr. Skerritt, Utica, 1 ek; 3 hen. T. J. Casterton, Lowell, 3 ek; 1 pul. Dr. G. M. Fisher, Utica, 2 ek; 1, 2 hen.

White Dorkings.—All to B. D. Miller.

Colored Dorkings.—All to T. J. Gibbs.

BUFF ORPINGTONS.—S. E. Abbuhl, Cazenovia, 2 ek; 2 hen; 2 ek; 3 pul. Edmont Poultry Farm, 1 ek; 1 hen; 1 ek; 1, 2 pul.

B. B. R. GAMES.—Francis Morris, Jr., Amsterdam, 1 ek; 1 hen. George Pendered, Jermy, Pa., 2 ek; 1 pul.

G. D. Games.—All to A. N. Fay.

PIT GAMES.—Dr. J. H. Glass, 4 ek; 3 hen; 4 ek; 2, 3 pul. A. N. Fay, 1, 2, 3 ek; 2, 4 hen. B. C. Putnam, 1, 3 ek. J. C. Eldred, Utica, 2 ek; 1 pul.

Sumatra Games.—All to Boyson.

CORNISH INDIAN GAMES.—C. H. Yapple, Richford, 2 hen; 1 ek. Bell Bros., 1 hen; 1 pul.

White Indian Games.—All to Yapple.

B. B. R. Game Bantams.—Geo. Pendered, 2 ek; 1 hen; 1 ek; 1 pul. F. W. Chapin, 1 ek; 2 hen. J. A. Blair, Oneida, 2 ek; 2 pul.

GOLDEN SEBRIGHT BANTAMS.—C. C. DePuy, Syracuse, 1 ek; 2 hen; 1 ek; 1 pul. L. S. Crandall, Utica, 2, 3 ek; 1, 3 hen; 2 ek; 2, 3 pul.

Silver Sebright Bantams.—All to Crandall.

BUFF COCHIN BANTAMS.—L. V. Eavens, Jr., 4 ek; 3 hen. Ford Bros., 1, 2 ek; 1, 3 ek; 1, 3 pul. L. S. Crandall, 3 ek; 1, 2 hen; 2 ek; 2, 4 pul. G. H. Bielby, 4 ek.

WHITE COCHIN BANTAMS.—L. S. Crandall, 1 ek; 1, 2 hen; 1, 2 ek; 1 pul. G. L. Reider, 2 ek; 3 hen; 2 pul.

BLACK COCHIN BANTAMS.—Crandall, 1 ek; 2, 3 hen; 3, 4 pul. J. M. Seymour, 1 hen; 2 pul. Dr. E. M. Santee, 1 ek; 1 pul.

Light Brahma Bantams and White Game.—All to Bell Bros.

Central Missouri Poultry Show.

The Central Missouri Poultry Association closed its third annual exhibition at Boonville, Mo., November 29th, after a most successful four days show. Nearly five hundred birds were in the room, and the quality the finest.



AN ORNAMENTAL POULTRY HOUSE CONSTRUCTED ON PRACTICAL LINES.

At Grove Hill Poultry Yards, Waltham, Mass.

Light Brahmas.—All to E. F. Boyson, Rome.

Dark Brahmas.—All to Boyson.

Buff Cochins.—All to A. N. Fay, Split Rock.

Black Cochins.—All to J. M. Seymour, Westmoreland.

Black Langshans.—All to Boyson.

S. C. R. I. Reds.—Chas. Smith, Julius, 1 pul.

S. C. BROWN LEGHORNS.—W. Williams, Rome, 2 ek; 2, 4 hen; 3 pul. J. H. & S. A. Burk, Rome, 1 ek; 1, 3 hen; 3 ek; 2, 4 pul. Geo. Oldfield, Jr., Rome, 4 ek. Dr. E. M. Santee, Cortland, 1 ek; 1 pul. C. W. Parkinson, North Bridgewater, 2 ek.

R. C. BROWN LEGHORNS.—V. J. Casterton, 1 ek; 1 hen; 2 ek; 1 pul. H. D. Thompson, 2 ek; 2 hen. L. V. Eavens, Jr., Chittenango, 1 ek; 2 pul.

S. C. WHITE LEGHORNS.—Otto H. Peters, Buffalo, 2 ek; 2, 4 pul. J. A. Ott, Rome, 3 ek; 4 hen. F. W. Chapin, Oneida, 1, 2 ek; 1 hen; 1 ek; 1 pul. Thomas Irving, Clinton, 4 ek. F. H. Coventry, 2, 3 hen; 3 ek; 3 pul.

R. C. WHITE LEGHORNS.—F. H. Coventry, 1, 2 ek; 1, 2 hen; 1, 2 ek; 2, 4 pul. G. H. Bielby, Rome, 3 hen; 3 pul. L. V. Eavens, Jr., 4 ek. J. H. & S. A. Burk, 1 pul; 3 ek.

BLACK LEGHORNS.—G. H. Bielby, 1 hen. T. J. Gibbs, Rome, 1, 2 pul; 2 hen.

BUFF LEGHORNS.—Edmont Poultry Farm, 1 ek; 1 hen; 1 ek; 2 pul. J. H. & S. A. Burk, 2 hen; 1 pul.

S. C. BLACK MINORCAS.—L. D. Clark, Apalachin, 2 ek; 1 hen. John H. Broad, Morrisville, 1, 3 ek; 2 ek; 1, 2 pul. Dr. E. M. Santee, 1 ek. Geo. Oldfield, 3 pul.

R. C. Black Minorcas.—All to Edmont Poultry Farm.

WHITE MINORCAS.—L. D. Clark, 1 ek; 1 hen; 3 ek. F. Boyson, 2 ek; 4 ek. Dr. E. M. Santee, 2 ek. Anconas.—All to Putnam.

White Crested Black Polish, Golden Polish, Silver Polish, White Polish, Bearded Silver Polish, and Buff Laced Polish.—All to Bell Bros.

SILVER SPANGLED HAMBERGS.—B. C. Putnam, 1 ek; 1 hen; 1, 4 pul. C. W. Fowler, South Edmeston, 1 ek; 2 pul.

Golden Penedized Hamburgs.—All to V. J. Casterton.

Red Caps.—All to Bell Bros.

Houdans.—All to H. D. Thompson.

La Fleche.—All to J. M. Seymour.

Judge D. T. Heimlich scored the birds and, as usual, gave universal satisfaction. He is a "hard cutter." The election of officers for 1902 resulted as follows: H. A. Jewett, Clark's Fork, president; H. C. Duncan, Lamine, 1st vice president; L. M. Haynie, Nelson, 2d vice president; Mrs. Charlotte Wilkerson, Fayette, 3d vice president; H. P. Mason, Fayette, secretary and treasurer. The next show will be held in Fayette, date to be chosen later, with the veteran J. A. Maxwell as superintendent.

Awards.

BARRED ROCKS.—Mrs. T. A. Nelson, Bunceton, 1, 2 ek; 1 ek; 2, 3 hen; 1 pul. Mrs. W. L. Scott, Blackwater, 3 ek. R. A. George, Bunceton, 1 hen; 3 pul. D. Barnet, Boonville, 1 pul. Ed. G. Thoma, Boonville, 2 pul; 3 hen. Mrs. B. F. Doran, Bunceton, 3 ek; 2 ek; 2 pul.

BUFF ROCKS.—H. P. Mason, Fayette, Mo., 1 ek; 1 hen; 2 ek; 1, 3 pul; 1 pul. Boyd Norris, Fayette, 1 ek; 2, 3 hen; 3 pul. L. M. Haynie, Nelson, 3 ek; 2 pul; 2 pul.

WHITE ROCKS.—R. A. George, 1, 3 ek; 1 hen; 1 pul; 1 pul. Wm. Johnmeyer, Boonville, 1, 2 ek; 2 hen; 2 pul; 2 pul. G. E. Chambers, Boonville, 3 ek; 3 hen; 3 pul.

R. C. Barred and R. C. White Rocks.—All to R. A. George.

Black Langshans.—C. G. Miller & Son, Boonville, 1, 2 hen; 1 ek; 1 (tie), 2, 3 pul; 1 pul. H. C. Duncan, Lamine, 3 hen; 2, 3 cockerel; 1 (tie) pul; 2 pul.

White Langshans.—All to C. G. Miller & Son.

Light Brahmas.—All to L. M. Haynie.

Buff Cochins.—Wm. Johnmeyer, 1 ek; 1, 3 hen; 1 pul; 1 pul. Mrs. T. A. Nelson, 2 ek; 2 hen.

White Cochins.—All to Wm. Johnmeyer.

Silver Laced Wyandottes.—All to W. H. Carpenter, Pisgah.



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FIRE PROOF!!**

50 Cockerels.

Large, vigorous fellows in Barred and Buff Plymouth Rocks, and White Wyandottes, that were bred from our winners, and have had free range all their lives. We need the room for our pullets, and will close at once at \$2 EACH.

Give us a chance to please you; we can and will. **MILLVILLE POULTRY FARM,** Box P, Millville, N. J.

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They lead NOW—1901

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Pineland Incubator and Brooder Co.,
Box D, Jamesburg, N. J., U. S. A.

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COX'S THOROUGHbred
Barred Ply. Rocks

Are as good as the best,—strong, healthy, vigorous, nicely barred, farm raised birds, selected year by year for eggs for eight years. 155 hens averaged 188 eggs each in one year. Choice Cockerels \$3, \$4 and \$5 each.

H. F. COX, Sabbath Rest, Pa.

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drugs, medicines, home remedies, tablets, salves, plasters, veterinary remedies, sick room appliances, toilet articles, optical goods, flavoring extracts, paints, oils, etc., are listed in the

Illustrated Drug Book.

We sell them all by mail and guarantee to save you 15 to 75 per cent on every article ordered. This book contains everything you could possibly want at any time in the drug and medicine line. It is therefore a valuable book of reference and should be in every household. They cost us \$2 a piece. We send them out for 10 cents each—merely enough to pay mailing charges, and refund this on the first order that you send us. Write for it at once. You can never tell how soon you are going to need help.

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DAVIS' Blue Barred Plym. Rocks Are Winners.

You know the record of my birds at the leading shows in the past. I have the finest lot of birds this year I ever raised.

**200 Grand Breeding and Exhibition Cockerels
100 Choice Pullets for Sale.**

Write for prices and get my catalogue.

W. B. DAVIS, Haverhill, Mass.

WRIGHT'S - White Wyandottes

Win at the big South Framingham show, (Hawkins judge), 1st cock, 4th cockerel. My first prize pullet at the Pan-American was pronounced by expert judges to be one of the finest females ever seen in this country. I have a few choice cockerels and pullets sired by my winning cock and the same breeding as my Pan-American pullet for sale. Some of them can win in any company.

A. E. WRIGHT,
South Sudbury, Mass.

ek; 1, 2 hen; 3 (tie) pul; 2 pul. Wm. Johnmeyer, 1, 2 ek; 1, 2, 3 (tie) pul; 1 pul.

BUFF ORPINGTONS.—Mrs. W. N. Marshall, Lisbon, Mo., 1, 2, 3 cockerel; 1 ek; 1, 2 hen; 2, 3 pul; 1 pul. Mrs. Grace Viertel, Boonville, 2 ek; 3 hen; 1 pul; 2 pul.

Buff Cochins.—All to John S. Hughes, Fayette.

Golden Sebright Bantams.—All to Mrs. T. A. Nelson.

Stick to Your Breed.

Make a good selection in fowls for use, and hold to them. It is not advisable to change from one to another, as in doing so no progress will be made. Two years ago a fancier purchased a grand pen of fowls; they were one of our most popular and beautiful as well as useful breeds. After having them 20 months, his stock had grown to almost 200 fowls—all fine well bred birds. A short time since this gentleman changed to another variety, selling his full supply of beauties to another fancier, at a little less than the market prices. He now complains that there is no money in keeping fowls. In a short time he had purchased a fine pen of another breed, with which he feels sure he will make a success. Success with poultry, whether for exhibition, home consumption, or market eggs and meat, only comes to those who keep everlastingly at it, with the regular line of fowls which they understand. More is lost in changing than can be regained in several years.—*Country Gentleman.*



COLBY'S "PRIDE OF BOW."
Score 944 by L. K. Felch.

Ornamental Poultry House on a Farm.

Editor FARM-POULTRY:—We are not going into poultry raising for profit, or rather for a living, but just to supply our own private wants in regard to broilers and eggs, and want to build a house that will be up to date in every respect, but still as ornamental as possible, so as to be in keeping with the rest of the buildings on the place. We want to keep about two hundred chickens, half Plymouth Rocks and half Wyandottes. Would you advise keeping them in small flocks in separate pens, or have them all run together in one large coop, as some of our friends advise? Our location will face the south with the farm stable on the west as a wind break, and the farmhouse as a wind break on the northwest.

H. LACK.

For an ornamental poultry house in harmony with other farm buildings, the best way to go to work is to take a plain poultry house, such as one would use were the question of ornament not considered, and add the ornamental features. This is a problem for an architect, and in working it out the architect ought not to be allowed to alter dimensions or arrangement, except on approval of a practical poultryman. The ornamental features should be secondary. The trouble with most ornamental poultry houses is that whoever designs them makes the ornamental aspect of first importance, and tries to adapt the arrangements for the fowls to the architecture.

As to the plain plan of house, the diagram. If two varieties are kept there should be at least two flocks. I would suggest that for the purpose mentioned it would be better to keep only one variety, and if the fowls are to be given free range, or can have the run of a field of sufficient size, they would be handled as one flock, except during the breeding season, when it would be better to have separate quarters for breeding stock, and use a select few of the females with males of first class quality in the breeding pens.

Two hundred hens is a rather large number for most people to handle in one house, or one room, and I am inclined to think that this correspondent would find a house modeled somewhat after that of Mr. W. E. Bright, illustrated on opposite page, appropriate for his purpose.

This house is ornamental, and also conforms to common plans and dimensions. It has in the center a feed and cook room with office above, and in each wing pens about ten feet square, with a walk about three feet wide in the rear. This house plan could be used for a large flock in each wing, no walk then being needed, or it could have small pens adjoining the center building in one or both wings, with a large pen beyond, the walk extending only in the rear of the small pen.

The issue of this paper for July 15, 1900, contains plans which might interest Mr. Lack. The so-called "Hunter" open front scratching shed house is not perhaps as suitable for ornamenting as designed by Mr. C. H. Latham,

which has a two story building in the center. The issues of the paper for June 15th, and May 15th also contain house plans, and there is a good plan in the May 1, 1899 number.

BOSTON SHOW SPECIALS.

Remarkable List of Champion Challenge Cups—Other Grand Specials.

The list of "Champion Challenge Cups" offered by the Boston Show Association is sure to bring out strong strings of birds, and to put snap into the competition in many classes.

In Light Brahmas, Mr. A. R. Sharp offers two of these cups, each valued at \$100, one for the best Light Brahma male, the other for the best Light Brahma female. Breeders of this variety will also compete for another cup of like value, known as "the Governor Green-halge cup," and in addition, over \$100 in cash specials is offered on this variety by members of the N. E. Light Brahma Club, the Boston show, and the Massachusetts Agricultural Society.

Mr. W. E. Bright offers a \$100 champion challenge cup on Buff Cochins, and another on White Cochins, the offer being in each case for the best male. Mr. J. C. Sharp, Jr., offers a \$100 challenge cup for best Partridge Cochin male; and there is a good list of cash specials for each of the varieties named and for other Asiatics.

In Barred Plymouth Rocks, Mr. Thomas W. Lawson offers the "Dreamwell Cup," valued at \$150, for the best male, the cup to be won three times at the Boston show to become the property of the winner. Mr. J. C. Sharp, Jr., offers a \$100 challenge cup for the best Barred Rock female; Mr. James Cheston, Jr., offers a solid silver cup for the best three cocks, three hens, three cockerels, three pullets, and one exhibition yard shown by one exhibitor. There is also a very full list of cash specials, including those donated by the N. E. P. Rock Club on this variety.

Mr. W. C. Baylies offers a \$100 champion challenge cup for the best White Rock male. Mr. J. C. Sharp, Jr., makes duplicates, this for the best Buff Rock male, and Mr. C. M. Weld for the best Buff Wyandotte male.

On White Wyandottes, Mr. T. W. Lawson offers the "Dreamwell Cup," valued at \$150, for the best male, conditions as on the B. P. R. cup. FARM-POULTRY offers a \$100 champion challenge cup for the best female. House Rock Poultry Farm offers a \$100 champion challenge cup for best Rose or Single Comb Rhode Island Red male. The R. I. Red Club offers a silver trophy to the member of the club making the best display at the Boston show, the trophy to be won twice in succession, and also offers a cash prize of \$20 for best exhibit by a member of the club.

Mr. J. T. Morse, Jr., offers a \$100 champion challenge cup for the best Blue Andalusian male. Mr. G. B. Inches offers two \$100 champion challenge cups, one for best Silver Gray Dorking male, the other for best do. female. "A Friend" offers a \$100 champion challenge cup for best display of Pit Games. Mr. C. M. Weld offers a \$100 champion challenge cup for the best Cochin Bantam male or female, any variety.

On all these varieties, and on others which space will not permit us to name, the cash specials are generous and well distributed, offering unusually strong attractions in addition to the liberal regular prizes and the inestimable advertising value of winning at the Boston show.

On dressed poultry and eggs, the classification follows that of recent years, and both regular and special prizes are well worth consideration.

For premium lists address
Taunton, Mass. A. R. SHARP, Asst. Sec'y.

MARKET REVIEW.

BOSTON.

Eggs.—Nearby and fancy 35¢@40¢, and up; eastern 28¢@35¢; Michigan 28¢@30¢; fresh western 23¢@25¢; storage 18¢@20¢.

Dressed Poultry.—Fowls 8¢@10¢; native chickens 12¢@15¢, western 9¢@11¢; northern turkeys 11¢@15¢, western 8¢@11¢.

Live Poultry.—Fowls 8¢@9¢; chickens 8¢@10¢; green ducks 12¢@15¢.

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Are the world's standard hatching machines. They are in use in twenty Agricultural Colleges and Schools in the United States and Canada.

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NEW YORK.

Eggs.—State and Penna. 30¢. and up; fancy western 27¢@28¢; average good western 24¢@25¢; refrigerator 17¢@19¢; limed eggs 18¢.

Dressed Poultry.—Average best western dry packed chickens 9¢@9½¢, iced 8¢@8½¢; dry packed fowls 9¢, iced 8¢; old roosters 5¢@6¢; western ducks 10¢@11¢, iced 7¢@10¢; geese, dry packed 8¢@9¢, iced 7¢@7½¢; turkeys 9¢@10¢.

Live Poultry.—Turkeys 8¢@9¢; fowls 8¢@9¢; chickens 7¢; old roosters 5¢@5½¢; ducks, average western, per pair 60¢@70¢, south-western 50¢@60¢; geese 75¢@81¢ per pair.

PHILADELPHIA.

Eggs.—Penna. and nearby 30¢; western 30¢; south-western 39¢; southern 28¢; ice house 18¢@19¢.

Dressed Poultry.—Fowls 8¢@10¢; chickens 10¢@13¢; turkeys 9¢@12¢; ducks 10¢@13¢; geese 8¢@11¢.

Live Poultry.—Fowls 8¢@9½¢; chickens 8¢@9½¢; old roosters 6¢@6½¢; ducks 9¢@10¢; geese 9¢@10¢; turkeys 9¢@10¢.

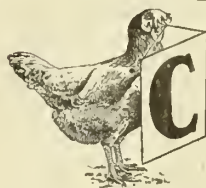
CHICAGO.

Eggs.—Firsts 24¢; storage 17¢@18¢.

Dressed Poultry.—Fowls 7¢; springs 7¢@7½¢; ducks 8¢@8½¢; geese 7¢@8¢.

Live Poultry.—Turkeys 6¢; fowls 6¢; springs 7¢; ducks 7¢; geese \$3@5 per doz.

New Hampshire's Poultry.



ENSUS BULLETIN, No. 113, giving agricultural statistics for New Hampshire, says:—"In comparing the poultry report of 1900 with that of

the eleventh census, it should be borne in mind that in 1900 enumerators were instructed not to report fowls less than three months old, while in 1890 no such limitation was made. This fact explains in part the decrease in the number of all kinds of fowls. It is the opinion of poultry experts, however, that, owing to western competition and the difficulty of keeping stock free from disease, the raising of turkeys, geese and ducks is gradually being abandoned. Compared with the figures for 1890 the present census shows decreases in the number of fowls as follows:—chickens, 6.6 per cent; turkeys, 76.6 per cent; geese, 53.9 per cent; ducks, 77.7 per cent.

The number of fowls (over three months of age) on New Hampshire farms June 1, 1900, is given at:—chickens, 870,461; turkeys, 2,863; geese, 1,289; ducks, 3,803; total value of all \$467,104. The value of the poultry raised in 1899 is given at \$610,696, and the value of the eggs produced at \$1,213,703. Thus the value of poultry product for the year is \$1,824,399.

A comparison of figures in the table giving value of domestic animals on the farms of the state shows that only two classes of farm animals can show a greater total value than the poultry of the state. These are the milch cows, valued at \$3,615,354, and horses, valued at \$3,726,007. It should, however, be said that the figures for poultry include all kinds of poultry. Even so, poultry on the whole makes a favorable comparison with most of the products of the state.

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for neatness, lightness, security, and durability. Thousands use and endorse them. Prices, postpaid, 25¢ per 12; 40¢ per 25; 75¢ per 50; \$1.35 per 100.

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Rhode Island REDS.

We purchased and bred from last spring the following birds: 1st R. C. cockerel, Boston and N. Y., 1901; 1st S. C. cockerel, Boston, 1901; the father of both these birds; the mothers of both these birds; 2d S. C. cockerel, Boston, 1901; the mother of same, and eight other hens from same stock. The 4 R. C. pullets that won 1st in pen at Fall River and Wallingford, Conn. We also bred from many other birds of exceptional merit.

After January 1st we shall have both stock and eggs for sale. Write what you want. Prices a matter of correspondence.

FRENCH FARM.

Concord, Mass.

THOMAS HOLLIS, Proprietor.

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"Weather permitting," we expect to have in the January 1st number some exceptionally valuable and interesting reports of visits of the editor to poultry growers. First of these will be a report of a visit to the turkey growers around Westerly, R. I.; next an account of a day's visit to one of the long established egg farms near Boston; and next, reports of shorter visits to other egg farms in the same vicinity, and comparisons of methods. These articles will all be especially appropriate to the season, and will be very fully illustrated.

An article on photographing fowls, by C. E. Petersen, should be on hand for that number, and is sure to prove of great interest, for Mr. Petersen has done some excellent work in this line, and knows his subject.

Reports of numerous shows will appear in this issue. We urge show secretaries to be prompt in sending in reports, and avoid delays in publication.

AS WE look back over the issues of the paper for the year which ends with this number, and compare the actual with the projected work of the year, we feel very loth to make definite announcements of features for the coming year. It is not so much that the volume, as a whole, falls short of expectations. We hardly think that it does so to a greater degree than is unavoidable where the standard of desired attainment is high; but from unavoidable reasons, plans for several special features could not be carried out at the season when they should have been, and thus we were forced to modify them or let them go over a year, some being disposed of one way, some another.

To offset these failures we have had some good contributed features not anticipated when announcements for the year were made, and have also had the pleasure of learning on several occasions that editorial articles to which, when written, we did not attach more than commonplace value proved to be of special value to large numbers of readers. As everyone who writes for publication will understand, the unexpected expressions of great appreciation of such articles is peculiarly gratifying.

On the other hand, we have more than once had occasion to regret our inability to help certain persons in trouble. There are a great many persons engaged in poultry keeping who, to use a popular and forcible, though inelegant phrase, have "hitten off more than they can chew," with the result that while they are righting one wrong, or giving special attention to one pressing matter, trouble is brewing elsewhere, and try as they will, they make no general progress. Letters from such persons frequently cause suspicions that the statement of troubles is so incomplete, (because the writer's apprehension of the extent of the trouble is so limited) that even when our advice is appropriate as far as it goes, he will not derive any appreciable benefit from following it, and may feel that we have not helped him as we might.

Others who with, perhaps, more reason may charge us with sins of omission are those whom we have had to neglect, whose questions we simply could not take time to investigate and report upon within the time when a reply would be useful to them. Still others who think we have failed in our duty as regards their correspondence are those whose questions showed such confused ideas of the matters at issue that the task of setting them right would require a complete exposition of one or more branches of poultry keeping. The only reply we can make to such inquiries is to advise the correspondent to make special study of the subject, or subjects, on which he is misinformed, referring him, when possible, to leading special hooks or articles. Advice of that kind—as we have reason to know—is not often taken kindly. Correspondents of this class seldom realize how very little useful knowledge of poultry they have, and think they were, at the least, entitled to the form of an answer to each of their questions. However, these are but small troubles which do not worry us much as long as we can feel that we have done what we could.



Looking Forward

TO THE coming year we do not feel inclined to make any full detailed announcement of features. Broadly stated, our policy in the future as in the past is to give our readers reliable and accurate information on every branch of poultry keeping, and to keep them informed on all matters that are occupying the thoughts of studious poultry keepers. We hope during next year to do some of the work left undone in this, and to do it better than we could have done it this year. We intend also to make an effort to secure a number of articles of great interest to readers generally, along a line that has been worked but little by the poultry press, though we have had one or two of them. The diffi-

culty of securing these articles is such that we prefer not to speak of them more definitely until we are sure of at least a part of those we have in mind.

The "symposims" of the past year have been generally so popular that we shall have some three or four during the coming year, using such subjects as appear likely to bring out opinions from a large number of poultrymen. The first of these will probably be in line of a discussion of methods of selling stock, a subject upon which a general exchange of opinion could not fail to be helpful.

The four leading shows of the country coming within one month, and the two most important conflicting in dates makes it impossible for us to give space for as full accounts of these shows as we have made the past two years. We shall, however, write each up as fully as space will permit, and of course the awards of these shows, as of many minor ones, will be published in full.



The Index to Volume Twelve

IS VERY complete, and we have added to it an index of principal contributors; this feature being suggested by frequent inquiries from readers as to where—in what issue—So-and-so's opinion on such and such a subject appeared. A great many remember the name of the contributor, and thus are able to refer to a matter when their recollection of the title of the article in which what they are looking for appeared is too indistinct to be of much help to them in using the general index. On this account we think this supplementary index will be appreciated.

The general index, itself, will be found very complete, and more serviceable than that of last year. An apprehension of certain "lacks" in that index made us very careful in the making of headlines throughout the year, having always in view their use in connection with the index. In answering questions especially we not only tried to use expressive brief titles, but frequently split lists of questions in order to make each equally prominent.

We cannot too strongly urge on readers the importance of preserving complete files of the paper. It very often happens that as a subscriber's knowledge of poultry is enlarged he becomes interested in subjects to which, at the time they were treated in the paper, he paid little attention. He remembers that such an article was published, and may remember when. He writes for the number containing it, only to find it out of print, and to wish, too late, that he had preserved his papers. Many deplete their files by giving their papers away to interested parties. To such we say,—Don't do it. Send us the person's name and address and we will see that he gets a sample paper. If there is any particular paper you want him to have mention the fact, and he will get the paper, if we have any copies left. It is not necessary to rob yourself.

We call attention of subscribers whose names have been added to our list recently to the announcement accompanying the index. Many matters of interest to them may have appeared shortly before they subscribed, and cannot therefore come up again for some time. Besides this, though we endeavor as far as possible to anticipate the subscriber's needs a little in advance of the season when each particular kind of information is useful, much of the best matter published on any topic is published during the season and a little too late to be of practical use for that season. This is unavoidable, because most poultrymen are most interested in the work actually being done at any time, and the best thoughts and ideas of the experienced and the most pertinent questions of the inexperienced are apt to come to the paper a little late in the season. Beginners especially find the perusal of corresponding issues for the previous year a valuable kind of collateral reading in their study of current papers.

The People's Poultry Paper.

THESE are the days of headlong enterprise, when the old saying, "In the multitude of counselors is wisdom," is not much in favor, because many counselors mean deliberation, which does not fit in with the spirit of the age. That old saying came to mind frequently as the mails brought in the articles for the various symposia published during this year. With many persons answering the same questions one would naturally look for a certain sameness and some repetition, yet whoever would examine one of these symposia for the purpose of noting resemblances in expressions of opinion could not fail to find less than he expected, and to observe great variety in the sameness. There are few even of the shorter articles which could have been omitted without leaving a gap in the statement of the case.

The same thought came to mind very forcibly as we were preparing the index for volume twelve of the paper. It has been our purpose through the year to present each matter treated in as many different aspects as possible, to give our readers a choice collection of expert opinion, and in this we feel as we review the results attained in that line that we have been in a high degree successful. We do not say this in self praise. It was simply a matter of making an effort to find out what subjects were most interesting and valuable to the greatest number of readers, and a further effort to secure opinions from competent authority. For what has been attained in that respect our thanks are due to the many contributors who so promptly and satisfactorily replied to our requests for contributions. Had they not done so our plans would have miscarried. We appreciate their interest, and are proud of that list of names of contributors in the supplementary index.

It is such a list as we doubt whether any other poultry paper could publish, for these names do not represent such reading notices for the writers as are freely used by many poultry papers, but contributions of direct and genuine interest to the poultry public. There are nearly two hundred of them, and these are but a part of those who have contributed this year to make FARM-POULTRY the people's poultry paper. Many times larger would be the list of those who by inquiry and suggestion, in unsigned published matter and in correspondence, have had a part in the making of the paper. It is this that creates that feeling of personal interest in the paper of which subscribers give us so many manifestations, and upon which advertisers occasionally comment.



A Correspondence Poultry School.

RESULTS of the educational undertaking of which mention is made in the news column in last issue will be watched with interest. We are glad on our own account that our expressions of opinion on correspondence schools for teaching poultry keeping anticipated the announcement of this one. Had it not done so, or had we known of this movement when we wrote, we would have felt that in freely expressing opinion on this subject we were liable to the charge of antagonizing this effort.

A careful consideration of the prospectus sent us by Mr. Ladd does not suggest that the occasion for modifying any opinion previously expressed has yet arrived. Results of his work may furnish such occasion; therefore our interest in it.

Having given a general opinion on the subject, we mention in this connection only a few points in this particular course. We presume that for the first year the arrangement is largely tentative, to be changed as experience shows necessary. With this understanding of the case we suggest that the matter of making the course more an elective course, adapting each student's course to his individual requirements, is worth considering.

To illustrate:—the work for the month of August is "Various Breeds, Utility and Fancy. Origin, history, value, cross breeds." Required readings, "The Leghorns," "The Wyandottes," "The Plymouth Rocks," "Turkeys," "Ducks and Geese." We know of no particular reason why a breeder of Leghorns should give any special study to the

other breeds, and the readings make no provision for students handling other breeds than those mentioned. It seems to us that the general principles of breeding should be taught as general principles, not inculcated in a course of study which includes many applications of no practical value to the student.

The statement of the "aim" and "results" of the course seem to us fairly open to criticism, though the faults of these statements are no more than exaggerations usually considered legitimate in advertising. Such exaggerations when not too flagrant may pass without criticism, as simply a seller's most favorable estimate of what he offers for sale; but at the same time experienced buyers discount such statements, and in advising other buyers caution them to the same purpose. So we think persons considering such a course (and only the inexperienced need to do so) ought to be advised that there is not the most remote possibility of the aim of the course being realized within the period devoted to it, and that even those who profit by it most, will still find themselves but scantily equipped for the positions as managers and superintendents of poultry farms which are promised them.

The aim of the course is said to be "to impart a thorough knowledge of the poultry business * * * not theoretical and bookish merely, but intensely practical in every detail." If one result of the course is to turn out students imbued with the idea that it has thoroughly equipped them as poultrymen, then the course will have done them far more harm than good, for it is simply impossible that by the means or in the period devoted to this end they should do more than make a fair beginning in knowledge of poultry culture.

Would it not be better to make students understand from the start what this course could really do for them—neither more nor less. It might well be worth far more than its cost to many students who made but little perceptible progress in it; that will depend very much upon the quality of the instructors. But a year's work on the best of farms with the best of practical men as instructors is too short a time to fit a man for a position of responsibility on a poultry farm, and it is not conceivable that a correspondence course covering a year would do anywhere near as much for him.



Novice Classes at Boston.

THE BOSTON show management continues this year the feature of "Novice Classes" inaugurated several years ago, and adds to the list of varieties for which such classification is made. In so doing they furnish a fine opportunity for fanciers of limited experience to compete on equal terms in a big show, to have their birds judged by the same judges, yet not come into competition with the veterans of the show room. The novice classes make a good preparatory school from which to draw in subsequent years for regular classes.



Colds and Roup.

AS USUAL at this season we have a large number of inquiries as to what to do for various forms of colds and roup. We refer the greater number of these inquiries to the article, "Colds and Roup," by Dr. P. T. Woods, published in the issue of FARM-POULTRY for Jan. 1, 1899. This is, we think, the most complete and at the same time the simplest and most concise treatment of the subject published. Every poultry keeper should have a copy of the article for reference. That edition of the paper, though an extra large one because of the anticipated demand for this article, is now almost exhausted, and those who want copies should order at once, as this article will not be reprinted, it being our purpose to arrange for an entirely new article for publication early next fall. We publish at any time brief descriptions of forms of roup, and give remedies for the same, but a fully instructive and thoroughly helpful article on such a big subject can neither be printed in "Answers to Questions," nor prepared on short notice.

Therefore, those who want a good article on roup for present use should order a copy of the Jan. 1, 1899, paper.

Farm-Poultry at the Philadelphia Show.

AT THE coming Philadelphia show FARM-POULTRY will have a stand the same as for years it has had at the Boston show, with the editor of the paper and Mr. F. N. Barcelo, the advertising manager, in charge. Both subscribers and advertisers who visit the Boston show make our stand their headquarters, and many make it a custom to renew subscriptions and advertising contracts there each year. We shall be pleased to see any visitors to the Philadelphia show for such purposes, and just as pleased to see any who have no particular business to transact, but want to get acquainted, borrow a stamp, or sit and rest awhile.



Has Worked Its Own Oblivion.

SOMEWHAT over a year ago, when some poultry papers were taking exceptions to the course of those secretaries of specialty clubs who were editing departments for their clubs in poultry papers, we remarked that in our opinion opposition to such schemes was needless, because they would gradually work out their own oblivion. In the *National Fanciers' Journal* for November we find the following obituary notice of the last survival of the scheme:

"We have for some time been devoting a few pages each month to the interests of several varieties represented by specialty clubs. We have come to the conclusion that the matter contained in such pages is not on the whole of as general a character as we feel we are under obligations to furnish the majority of our readers, and have therefore discontinued the pages. We trust our friends who handle the varieties affected will understand that we will at any time be glad to publish matter concerning such breeds, or the clubs organized in their behalf."



By Courtesy of the Bureau of Animal Industry.

IN ITS December issue *The Feather* rises to explain in regard to the publication of color plates "by courtesy of the Bureau of Animal Industry," that "this is a privilege that any publisher who pays the money can enjoy." From which it would appear that times have changed since the announcement was made that "These plates * * * can be had only at *The Feather* office," and especially since F.-P. called attention to that matter. F.-P.'s attitude towards the methods of this miniature would-be monopoly probably accounts for the tirade against its editor; but we don't mind little things like that—not from such sources, and we are pleased to learn through the statement as to where large numbers of these color plates are going that Mr.

Howard is deriving much satisfaction from the high estimation placed on his color plates by an "agricultural college," and a "foreign contemporary."



Editorial Notes.

One of the neatest little rhymes on the hen we have seen is this from a volume of animal pictures and verses, by Oliver Hereford, recently published by Chas. Scribner's Sons, N. Y.:

"Alas! my Child, where is the Pen
That can do justice to the Hen?
Like Royalty, she goes her way
Laying foundations every day,
Though not for Public Buildings, yet
For Custard, Cake and Omelette.
Or if too old for such a use
They have their Fling at some Abuse.
As when to Censure Plays Unfit
Upon the Stage to make a Hit,
Or at Elections Seal the Fate
Of an Obnoxious Candidate.
No wonder, Child, we prize the Hen,
Whose Egg is Mightier than the Pen."

The S. C. Brown Leghorn club's secretary's announcement or statement is that one of the objects of the club is "to obtain for them better recognition by the poultry shows and the poultry press." Similar statements have come from time to time from other specialty clubs. Their frequency raises the question:—Are these conventional statements, or do they result from a conviction that the managers of shows and editors of papers are not giving the varieties the recognition they deserve?

As far as the shows are concerned special recognition for a variety takes the form of special prizes, and in most instances the amount of these is in exact proportion to the response of breeders of the variety to the efforts of show managers to secure an attractive list of specials for the variety. In the last analysis better recognition of a variety by the poultry shows depends upon its breeders. We do not think it would be seriously affirmed by anyone familiar with methods of show management that managers favor one variety more than another, except that in placing association specials they often put them where they have reason to believe that they will draw the most entries. This again is bringing the question home to the breeders.

The case of the poultry press, however, is somewhat different. The customary attitude of the average breeder on this question is that the breed in which he is interested is not given the attention it should have in the poultry press, and it does not seem to make much difference how much or how little is said of his variety, "recognition" of it still falls short of what it should be by just so much.

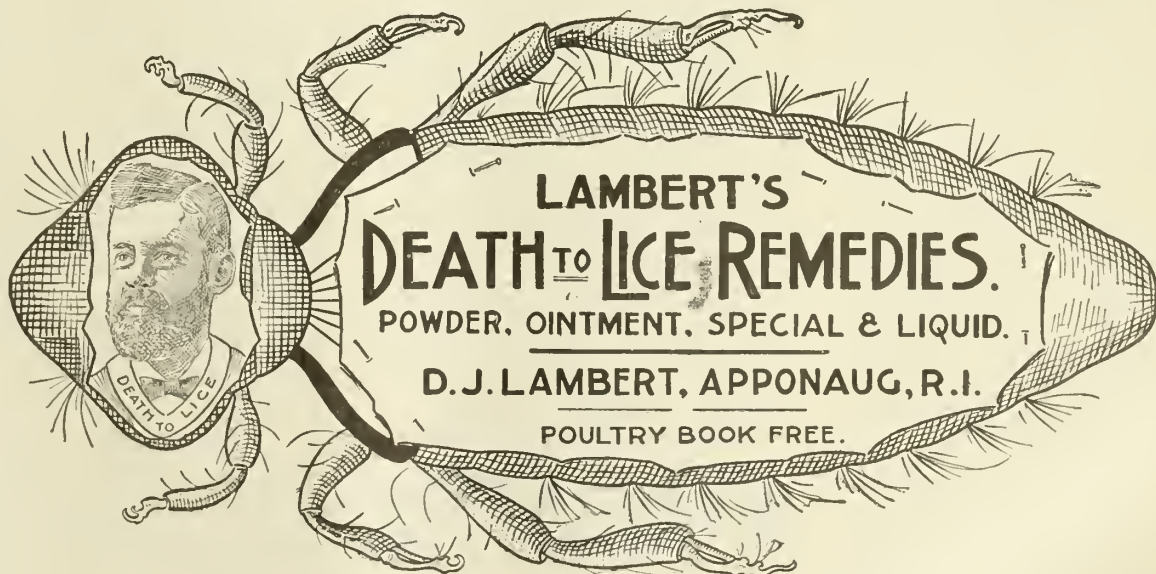
Now, inasmuch as recognition of a variety by the poultry press consists in publishing matter relating to it, it follows that this sort of recognition also depends upon the breeders. If a man has something interesting to say about his variety he rarely experiences any difficulty in securing its publication. When there is a scarcity of matter relating to any variety it is generally either because that variety is not popular or because the breeders of it are not studying it with much enthusiasm—because there is nothing to say. If a breed is not popular the poultry press cannot as a matter of business devote much space to it. Poultry papers have to use their space so that the largest possible amount of published matter will be of interest to the greatest possible number of readers. If breeders are not studying their variety, recording their observations, and putting them in shape for publication, they cannot consistently find fault with the poultry press for not publishing matter relating to the breed which may be offered them.

Poultry papers can always get articles of a certain class about any breed, but too much of what is offered them is the cheapest and most commonplace sort of space writing. Breeders who want their varieties well recognized by the poultry press must remember that there are many papers and it takes many articles to go around, and that the best papers endeavor to avoid duplicating matter too frequently.

The application of the term, "friendly," to the Light Brahma, which Mr. Nobbs makes, will strike many friends of that breed as peculiarly appropriate. It fits other breeds also, but none better than the Light Brahma.

The use of the term, "friendly," in this connection suggests the query, "Why should not all fowls be friendly?" There are "friendly" individuals in all breeds and varieties, even in the Leghorns, and not only friendly individuals, but whole flocks as well. The fact is that one might easily have friendly fowls of any variety if he would make them so by breeding and handling. Many breeders devote a great deal of time and effort to handling and training fowls to make them tame and gentle. How many consider that as a point to be provided for in making selection in breeding?

It was generally assumed, and frequently stated, when the Standard of Perfection was revised, in 1898, that the revised Standard was to be a permanent Standard. At the last annual meeting an "editorial committee" was appointed to revise the palpable typographical and similar errors in it and report. Now we find this committee issuing a general invitation "to members of the American Poultry Association and everyone interested in the



DAVID W. HIGGINS, West Hartford, Conn., writes: "I have your Pocket Book Pointers for '95, '96, '97 and '98. I would like very much to get the others up to date if you have them, as follows: '99, 1900 and 1901. Your louse powder is the best that I have ever used, and I have used it for the past five years."

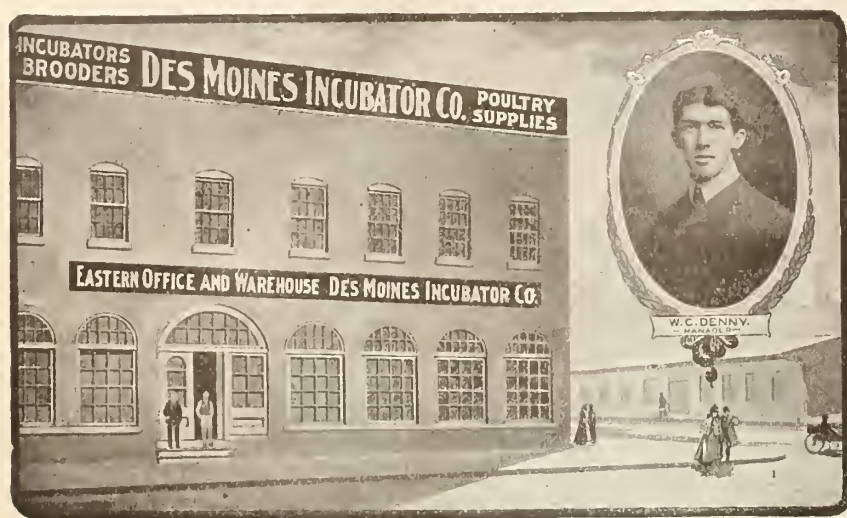
DR. E. A. KEGLEY, Ex-President of the American Poultry Association, Cedar Rapids, Iowa, writes: "I was never able to keep my chickens free from lice until I used your Death to Lice, and am now thoroughly convinced that it is the only powder."

FRED R. VILES, Waltham, Mass., writes: "This is the first summer that I have used Death to Lice, and I have had remarkable results. I have plucked a number of cockerels, and have not as yet discovered a louse."

Standard bred poultry," not merely to "call attention to omissions, and point out errors, typographical or otherwise," but to "make suggestions as to desired changes," in time to have same proposed sixty days in advance of the Charleston meeting.

It is impossible to foresee results of such rash methods; but then the American Poultry Association is neither a deliberative nor a deliberate body.

Incubators and brooders. All shipments on eastern orders are now made from the Buffalo warehouse, at a saving of time and expense to the purchaser. The management of this branch house is in the competent hands of Mr. W. C. Denny, formerly of Rochester, N. Y. Mr. Denny is one of the best known fanciers and practical poultrymen in the country, and is an expert in all matters pertaining to artificial incubation. The operations of the



Eastern Headquarters of Des Moines Incubator Co.

The rapid growth of the Des Moines Incubator Company has made necessary the opening of an eastern house at Buffalo, New York. The accompanying illustration shows the eastern home of the well known successful

Des Moines Incubator Company have, for several years, been international in extent, and this new departure is simply in line with the expansion of the business of this institution.

Eastern customers are requested by the company to address their correspondence to Des Moines Incubator Company, Box 14, Buffalo, New York.

ANSWERS TO QUESTIONS.

THE OBJECT OF THIS DEPARTMENT IS TO HELP READERS OF THE PAPER IN EMERGENCIES. It is a short order bureau of information.

Correspondents who ask for information or advice in matters requiring prompt attention, will be answered in the earliest possible issue of the paper made up after their inquiries are received. If inquiries will keep in mind that THE FORMS FOR AN ISSUE BEARING DATE OF THE 1ST DAY OF A MONTH CLOSE ON THE 20TH OF THE PRECEDING MONTH, and THE FORMS FOR AN ISSUE BEARING DATE OF THE 15TH DAY OF A MONTH CLOSE ON THE 5TH DAY OF THAT MONTH, they may know just how soon replies to questions can reach them through the paper. Inquiries are requested also to keep in mind that while an important feature of the paper, this department can only be given its due proportion of attention, and when inquiries requiring special investigation before a reply can be made are received, some time may elapse before the matter can be given attention.

IN CASES OF SPECIAL URGENCY THOSE WHO ENCLOSE STAMP FOR REPLY WILL BE ANSWERED AS PROMPTLY AS POSSIBLE BY MAIL.

Correspondents whose questions do not come within the scope of this department as outlined above will be referred to the most recent available information in line with their inquiries.

BE SURE TO SIGN YOUR LETTER. WRITE YOUR NAME AND FULL ADDRESS VERY PLAINLY.

Swelled Eyes. (F. R. M.)—When fowls' eyes swell as you describe the symptoms shown by your fowls they have roup, probably developed from a cold. Issues of F.-P., Jan. 1, 1899, and Nov. 15, 1900, either of them, will tell you all about it.

Cold Storage Bulletin. (R. E. A.)—Bulletin No. 74, of the West Virginia University Agricultural Experiment Station, Morgantown, W. Va., describes a system of cold storage, and reports experiments with various kinds of fruits and vegetables in cold storage. This bulletin is free to citizens of West Virginia, but I cannot say whether or on what terms it could be obtained by a person not a resident of that state. The subscriber could ascertain by addressing, Director Agricultural Experiment Station, Morgantown, W. Va.

April Pullets Molting. (E. A. W.)—Mr. W. has twenty White Wyandotte pullets hatched April 21st, from which he has as yet received no eggs. What cockerels he killed a little while ago were very fat, so suspecting that might be the trouble with the pullets he reduced their ration about one-third. About a month ago (date of his letter Nov. 19) the pullets all commenced to molt. Some one advises him to put a yearling cock with them and see if that will not start them laying. The molting of the pullets in this way is quite unusual, and with such meager knowledge of conditions as I have I shall not attempt to explain a matter about which, even with a quite complete knowledge of the facts in the case, I could probably only theorize. His feeding was rather heavy, and no provision made for exercise, but those conditions obtain often without such results as he notes. The pullets having started to molt it is not likely

that anything he can do will bring them to general laying before they are again full feathered. Feeding a stimulant might hasten the molt, and might result in a little spasmodic laying. This will probably not be a complete molt. Introducing a male to the pen may have some slight effect in accelerating egg production. That seems to be an open question. I have seen some cases where I thought it did, and some where it apparently did not, but no case where the effect was marked. If there is anything in the idea a vigorous cockerel would be more useful than an older bird.

Room for Fifty Pullets. (A. L. R.)—Mr. R. asks:—"How many pullets, for laying only, would you put in a house 12 x 12, double pitched roof, good and tight, with a shed 32 x 6, facing south, a front yard 16 x 50, the lower end protected by a corn stalk wind break from the end of the shed on; so that chickens can be out of the house all winter long? To the north of the house shed is a yard 80 x 60,

The Whitest WYANDOTTES

Are bred by

A. C. HAWKINS,
LANCASTER, MASS.

They win more prizes than all others, and

STAY WHITE.

Ad. on back cover.

MY GUARANTEE

FOR SPRING OF 1902:

A Chick to Hatch from Every Egg from Exhibition Matings, or else I will replace same FREE.

My stock kept under the most favorable conditions, with nature's own wants supplied, warrants me in offering my eggs as above.

WE LEAD --- LET OTHERS FOLLOW.

S. C. White Leghorns.

10 superb matings of the Stay White Beauties.

White Plym. Rocks.

8 grand matings of Rock Shaped Winners.

White Wyandottes.

8 matings of the Short, Chubby, Shapely Sort.

And one Special mating of each for cockerels. I mate no pens to produce Exhibition Cockerels and Pullets from the same pen.

EGGS

S. C. Black Minorcas.

6 elegant matings of the Glossy Bronze Green.

Barred Plym. Rocks.

8 magnificent matings of the Barred Wonders.

Light Brahmas.

6 matings of the large kind with feathers on their toes.

\$3 per sit. (12); \$5 per 24; \$15 per 100. Special Ckl. Matings, \$5 per sit. (12).

I also have over 2000 choice laying bred stock of above varieties, line bred since 1888 for great egg production from earliest maturing fully developed stock and best yearlings from which I shall sell eggs at \$1 per 12; \$5 per 100; or chicks, \$15 per 100, right from the incubators. Any variety shipped in safety within 24 hours travel. Descriptive catalogue free.

ELM POULTRY YARDS,
State Agent for the Star Incubator Co.
Hartford, Conn.

Rhode Island Red Club Meeting.

The annual meeting of the Rhode Island Red Club will be held at the Boston show, Thursday, Jan. 16, 1902, at 2 o'clock, P. M. Something will be doing, as usual.

JOHN CROWTHER, Sec'y.

BREEDERS AND MARKETMEN.

OUR REQUESTS:—We make two requests of our Subscribers. One is when writing our Advertising patrons always mention FARM-POULTRY. Another is if you ask them questions, always inclose a stamp. If you observe both of these requests it will benefit you amazingly. It shows that you mean business. Remember, "Molasses will catch more flies than vinegar," and those who observe it are served first.

A BIG BRIGHT LIGHT. Sunlight Carbon lasts 20 times longer than ordinary wicks. Sample 10c. Best on earth; clear white light. S. G. Robinson, printer of F.-P., 267 Atlantic Ave., Boston, Mass.

A \$5 BILL pays for one of my best Barred Rock cockerels, standard weight, correct shape, good combs, red eyes, nice legs, narrow even blue barring all over. Other good ones \$3 and \$4. Write for other wants and full information. Geo. E. Fassett, Beverly, Mass.

BARRED PLYMOUTH ROCKS and White Wyandottes, the very best blood in the east. Excellent breeding hens and pullets \$1.50 and \$2 each. Barred Rock cockerels, fit to head any pen, \$3 each. Two yearling Barred P. Rock cocks, vigorous and all right, \$4 each. Stock all grown on unlimited range. Scotch Collie puppies from registered stock, \$5 each. Wm. H. Cyphers, Crystal Farm, Washington, N. J.

BUFF WYANDOTTES. Do you want a cockerel or pullet that has clear buff wings and is sure of winning at your show? If so, let me hear from you. G. A. Knight, Peabody, Mass.

BUFF Wyandotte cockerels, fit to win in any show. Breeders also. A. H. Davenport, Beverly, Mass.

ROSE C. B. Leghorns specialty, also S. C. Blacks, Creamer free. J. L. Randolph, Cutler, Ohio.

ROSE C. BLACK MINORCAS, 1 nice hen and pullet, one extra show hen will sell extra low to close out. Northrup strain. Don't forget I have the finest Barred Rocks. Also choice White Wyandottes, White Rocks, and S. C. Brown Leghorns. W. W. Kulp, Box 40, Pottstown, Pa.

SILVER Wyandottes, large, open faced, typical, practical. Every bird a winner the last five years. Won 5 1sts at Boston, 1901. If you want this kind, write John C. Jodrey, Box A, Danvers, Mass. P. H. Gossard, Mo. Valley, Ia.

TRASK'S Plymouth Rock Farm Barred White and Buff P. Rocks, heavy layers, sure winners, bred that way. E. F. Trask, Beverly, Mass.

VERY choice cockerels, White Leghorns, Blue Bar, Plym. Rocks. C. B. Travis, Brighton, Mass.

WHITE WYANDOTTES. Have 100 choice yearling hens to dispose of that are prolific layers and will make excellent breeders; also a few March and April hatched pullets, all at a very reasonable price. A limited number of fancy Whites and Buffs (line bred) that will be ready Nov. 1st, that are fit to show in hot competition. Write for prices on any of the above. Satisfaction guaranteed. Frederick W. Howes, 14 Main St., Amesbury, Mass.

W. WYANDOTTES. If you are looking for show birds or extra good breeding birds, we can please you. Over 1000 to select from. Barnes & Woodbury, Wenham, Mass.

WHITE WYANDOTTES, Triumph strain, 100 large vigorous cockerels, 150 pullets, all bred from extra layers of large dark brown eggs. Also a fine lot of fancy stock, dead white and all right for any show. Prices right. Write at once. W. E. Mack, W. Woodstock, Vt.

BUYERS' DIRECTORY.

CLASSIFIED ADVERTISEMENTS only will be printed under this heading; no advertisement admitted containing less than TWO lines; no display other than the initial word or name allowed; no limit to length of ad.; an advertiser can divide his copy and put the matter under as many headings as he wishes; all space used except classified headline, to be charged at a uniform price of 25 cents per line each and every insertion; no less price per line for any number of lines or times inserted; copy will be changed often as desired; about seven ordinary words will make a line; all parts of lines charged as one full line; the headlines will be arranged alphabetically, as in a "business directory."

ANGORA CATS.

ANGORA Cats, all colors, beautiful, intelligent, loving pets. W. W. Clough, Medway, Mass.

BANTAMS.

GOLDEN and Silver Sebright; Buff and White Cochins Bantams. W. W. Clough, Medway, Mass.

BRAHMAS.

OVERCROWDED. Will sell 400 of my prize yearling hens and pullets in lots of 40 for \$50. Bay State Poultry Yards, Box 91, West Roxbury, Mass.

BREEDING STOCK.

CHOICE White and Buff P. Rock cockerels, Bates Excelstor strain. A limited number of pullets. Satisfaction. S. A. Bates, Westboro, Mass.

400 PROLIFIC laying brown egg stay White and Buff Wyandottes, R. I. Reds, Mammoth P. Ducks, trap nest pedigree, 1 won 25 prizes Manchester, N. H., 1900-01, scored 92 to 95 ex. Farm stock, correct shape, color. C. E. Davis, Warner, N. H.

BARRED Rock, R. I. Red, White Wyandottes, \$2; pullets \$1.25. Fred Brownell, Little Compton, R. I.

R. I. RED and B. P. Rock pullets, good laying strain; Belgian hares, pedigree stock, price reasonable. E. J. Benson, North Reading, Mass.

FOR SALE, a fine lot of S. C. Brown and S. C. Buff Leghorns, Barred Rocks, White Wyandottes, and Buff Cochins Bantam cockerels. Thomas Peck, Fairfeld, N. J.

COCHINS.

BUFF Cochins, Oakland Farm strain. Young and yearling stock. C. J. L. Ware, So. Keene, N. H.

CUT CLOVER.

CHOICE cut clover, cut in 4 inch lengths, all long stems sifted out. The best quality cut clover on the market. Also the best winter green food for poultry, \$1.25 per 100 lbs.; \$5 per 500 lbs.; \$10 per half ton; \$20 per ton. Order at once. C. A. Stevens & Co., Wilson, N. Y.

DUCKS.

ROSEN, Cayuga, Pekin, Muscovy and Call ducks bred from winners at Boston, for sale cheap. Must have the room. Arthur H. Sugendorph, Spencer, Mass.

EGGS.

WHITE Wyand., \$5, 100. Stock for sale, Silver Lake Poultry Farm, Silver Lake P. O., Mass.

EXCHANGE.

EXCHANGE Cyphers incubator for Wh. Wym. Write quick. W. J. Curtiss, Ransomville, N. Y.

GAMES.

WHITE Indian Game for sale cheap. H. B. Swamer, Plainfield, Pa.

with rather poor sod. I have 50 of my younger pullets in it now, and am afraid it is too many.* Considering that the hens can be out of doors all the time (this is in New Jersey), and have a good sized open shed in addition to the house I think that 50 hens should not be too crowded in these quarters. The greatest danger would be in the "good, tight" house at night. This probably ought not to be shut up close on any night, and with so many hens in it would often be better with the door wide open. It is not easy to direct any one just how to ventilate under such conditions. As safe a rule as any would be to keep the house open enough so that no bad smell will be noticed in it in the morning.

Rice Flour in Mash. (J. R. S.)—This correspondent wants an opinion of the following mash for fowls:—Rice flour two parts, wheat bran one part, corn chop one part. He says:—"I have been feeding this during the past year when obtainable to my Light Brahmas, and they seem to relish it greatly." As I never used rice flour at all and he has been using it for some time his opinion as to its merits would seem to be more valuable than mine. He says the fowls like it, but says nothing about results obtained when feeding it. As far as the composition of rice flour indicates its probable feeding value it appears that there would be little difference in feeding value between a mash as described above and one of bran and corn chop, equal parts.

Rattling in Throat, Sneezing, Frothy Discharges from Eyes and Nostrils.—I have quite a number of letters describing fowls sick with such symptoms, from two of which I quote briefly. One writes:—"My this year's chickens have a rattling in the throat and running at the nose. Some run at the nose without the rattling. Some of the old hens have the mouth wide open, making a distressed noise when they breathe, with froth in the mouth, and matter running from the eyes. The genuine roup is among them, too. What is the best medicine for that?" The other says:—"I have several chickens that start with holding their mouth open just a little bit, and a rattling in the throat. On opening the mouth I find it full of a light frothy matter, a mucus. Again when I go to the coops at night I hear a great deal of sneezing. My chickens are well housed, no draughts, and well cared for. * * * I also have a pullet that has a cankerous growth in her mouth, pretty well to one side. Can you give me a way to move it?"

To quote from more of the letters would be only to repeat the substance of what has been quoted. The two are enough to enable all correspondents about similar cases to see that answers to these apply also to their cases.

Dr. Woods, in the article on "Colds and Roup," in our issue for Jan. 1, 1899, of which every poultryman should have a copy, describes the different forms of roup. I give herewith brief condensations of symptoms of each.

True Roup.—*Diphtheria.*—Symptoms appear suddenly. The bird loses appetite and is dumpy. May not show any symptoms at eye or nose in the beginning. May cough, making a sharp "pip." Breath putrid. Putrid membrane forms in throat. Membrane may extend into windpipe, causing suffocation; or may extend into the nasal passages, and from them infect the eyes, causing swollen head.

Influenza.—Onset sudden. Bird droopy and feverish. Slight discharge from eyes and nostrils. May have greenish watery diarrhoea. Sneezes frequently. Later, discharge from nostrils becomes thick and sticky, and may become yellowish and smell.

False Roup.—Noisy rattling cough. Bubbles in corners of eyes. Mouth filled with mucus. Throat inflamed. No odor or patches. Voice weak.

Canker.—Seldom noticed until fowl shows some indisposition and makes difficulty of eating. Examination of mouth shows cheesy growths which are tough and hard, but may be removed from mucous membrane without causing bleeding. Surface underneath a deep raw ulcer. Color of growth varies from white to yellow. Sometimes eye is affected by growth appearing under lower lid, causing face to bulge out.

Cold in the Head.—Watery discharge from nostrils, becoming thick and purulent. Discharge may dry on nostril, obstructing it and

causing breathing through the open mouth. Eyes watery.

Bronchitis.—Bird is thirsty and feverish. Coughs frequently. Breathing labored and accompanied by a whistling sound.

Pneumonia.—Breathing very labored. Bird's position peculiar to the disease, usually is half squatting, half standing position, with wings drooped and held away from the body, neck stretched, mouth open, panting for breath.

Conjunctivitis.—Gumming of eyelids and swelling of face.

Keratitis.—Ulcer of eye.

Of these forms of disease resulting from or favored by conditions which cause colds, diphtheria, influenza, and pneumonia, may be classed as very dangerous; the others are less virulent, and if taken in time generally respond to treatment. These three are known to be germ diseases and contagious. Canker is by some supposed to be a germ disease. The others mentioned result from such causes as exposure, dampness, crowding, sudden changes of temperature, etc., which causes also favor action of the germs of diphtheria, influenza, and pneumonia. I cannot take space here to give the particular remedies and treatments recommended for these different diseases. Those who consult the complete article may use such of these as they can conveniently procure. Besides these some of the special roup remedies such as Conkey's roup cure, the Star specific, and others have given excellent results.

The point I wish to impress on those who are having troubles of this kind is that mostly they result from conditions which ought to have been avoided and which must be remedied if the flock is to be brought back to health. I think that the writer of the first letter quoted rears his chickens by the usual colony plan methods. I am not sure that I did not call at his farm one day when he was away from home, and find there an uncommonly nice looking lot of chicks, but much too crowded. Chicks so kept do not always contract colds and consequent disease, but if there were companies insuring the lives of chickens, those kept under such conditions would not be classed as among the most desirable "risks."

The writer of the second letter mentions the fact that his chickens are well housed, no draughts. Perhaps that is the trouble. This is considered a hard, a changeable, and severe climate, in the vicinity of Boston, and in the nearly five years I have been here my fowls have never been kept in tight houses, yet I have not had cases of roup enough to test the few remedies sent me for that purpose. My fowls sometimes have colds, some of them, and sneeze a little, but they have stamina and are used to roughing it, and throw the trouble off almost immediately. At a grange meeting in Rhode Island a few weeks ago a poultryman complained to me that his fowls would catch cold on the roosts in his scratching shed house, though the only possible draught was through the little hole through which the hens passed from the roosting room to the scratching shed. I tried to convince him that it was not a draught but a lack of circulation of air that caused the trouble, but do not know how well I succeeded. The fact remains, however, that cooing is at least as fruitful of troubles of this class as exposure.

Will Not Eat the Wheat. (F. L. E.)—"In a mixture of three-fifths wheat and two-fifths cracked corn, at night, my hens will not touch the wheat, leaving it for a week on the ground, and the feed is about two-fifths what it was two weeks ago." As readers will notice, this is one of a number of questions asked by the same person, and has been partially answered under the heading, "Hens Have Poor Appetites." The more I think of this case the more likely it seems to me that these hens' appetites and digestive powers have been in some way impaired, and I must say that the fact that grain is left on the ground for a week, suggests that there has been a lack of judgment in feeding. Unless that wheat is absolutely uneatable, (and I have no reason to suppose that it is anything but good wheat) the hens ought to eat what they left at night before they were given any other food next day. This correspondent also asks if it is a good plan to feed mash freely, and let the hens have all they will eat

in fifteen minutes, then take it up. Here again comes in a question of judgment in feeding. A good feeder puts down about what mash he thinks the fowls will clean up in a few minutes. If it is not eaten he may take it up that once, but he is not likely to have to remove it many times. If one cannot feed mash so that there will rarely be any necessity for its removal, the better way is to feed less than the hens will eat, and let them work in litter for grain for the rest of what they want. The question of feeding mash also depends upon the consistency of the mash.

Line and Pedigree Breeding. (A. F. B.)—You will find full explanation of a system of line and pedigree breeding in the issue of this paper for April 15, 1901.

Was It Good Laying? How About Ration? (Mrs. J. McE.)—This correspondent has 30 White Wyandotte pullets and 15 two year old hens. The pullets started laying Nov. 6th, and from them she got 149 eggs. She asks, "Is this anyway good laying?" It is not exceptional, but as laying generally is at this season of the year, it ought not to be considered unsatisfactory. She also asks about her ration. She feeds four quarts of hot mash, made of equal parts corn meal, shorts, and ground oats, with a pint of meat meal added, in the morning; two quarts wheat screenings at noon, and four quarts whole corn at night. If she can so arrange it, I think she would find it better in the long run to feed the wheat screenings in litter right after the mash, give about three quarts of cracked corn in litter at noon, or shortly after, and give a light feed of whole corn just at dusk if the fowls seem hungry. Her method gives too large a proportion of the food late in the day, and too little in the morning, and the proportion of whole corn used is too large for continuous good results.

GEES.

WHITE CHINA geese, bred from our 1st prize winners at New York for sale.
Fernwood Farm, Trenton, N. J.

BROWN CHINA geese, the best layers known. My Chinas have won first at Boston for the past 4 years. A choice lot of old and young birds for sale.
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75 PURE Mammoth Toulouse geese, Bronze and W. H. turkeys, F. T. Baker, Ransenville, N. Y.
ONE No. 1 Embden gander for sale, weight 21 lbs.
Bernard Plantz, Johnstown, N. Y.

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THE MOULTON INCUBATOR, cash, installments, or rented. The Perfect Regulator fits any incubator; 4c. In stamps for circular.
H. D. Moulton, Meriden, Conn.

4 PRAIRIE State incubators—1 special duck egg, 288 duck eggs, 312 hen eggs; 220 hen eggs; 2 100 hen eggs; each of these machines have both duck and hen egg trays; also 5 Prairie State sectional hot water brooders, with runs complete. All of these are as good as new, having been used but part of one season, for \$100 cash. Address Mrs. Hedge Thompson, Longwoods, Talbot Co., Md.

MONARCH incubator, 600 eggs, in fine condition. Oakdale Poultry Yards, Wenham Depot, Mass.

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YOU KNOW at a glance the number of the band without catching the fowl, by using Manwaring's Distinguishable poultry bands in sets of 4, 8, 12, 16, 20 and 24, at the rate of 4 bands for 10 cents. L. Taylor, Westerly, R. I., after using them nearly two years, orders 16 more. S. L. Marshall, Fort Chester, N. Y., writes: "The bands were all right. I like them very much."
J. O. Manwaring, Box 458, Niantic, Conn.

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CHOICE cockerels, celebrated Blanchard strain. After Oct. 1st I will have some very fine White Leghorn cockerels for sale at \$1, \$3, \$5 each. A grand opportunity to secure pure bred vigorous birds, order now and avoid disappointment. Address H. E. Harris, Canandaigua, N. Y.

BUFF Leg. cockerels and pullets bred from stock scoring 94, \$2 up. E. T. Perkins, Saco, Me.

ROSE COME BUFF Leghorns, first prize winners at New York, Boston, and Pan-American. 100 hundred for sale. Moderate prices. Address Alfred Thomas, Rockville, Conn.

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1000 ROSE and Single Comb Bl'k Minorcas, Large cat. G. H. Northrup, Racine, N. Y.

BLACK Minorca cockerels, \$2. R. Story, 187 Arlington Ave., Brooklyn, N. Y.

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ROSE and Single Comb Black Minorca cockerels, fine birds, \$2 to \$4 each.
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WHITE PLYMOUTH Rock cockerels for sale, \$2 each; also few pullets and yearlings. Great egg producers. Standard bred, sure to please you.
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I WILL spare a few high grade Barred Rock pullets, light or dark matings. Winners or breeders as wanted. If you want something good write me.
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BARRED Rocks exclusively, Ringlet strain. A choice lot of cockerels sired by 1st prize cockerel at West Brookfield, at right prices.
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SPECIAL, extra line pen Buff P. Rocks, \$10. Spring Run Poultry Farm, Washington, N. J.

BUFF stock COCKERELS, good breeding stock \$1.50 to \$3. John Tufts, Rockport, Mass.

COCKLES, Buff, Barred White Rocks, farm raised, \$2 to \$3. M. A. Brown, Box 94, Middleboro, Mass.

FOR SALE, 50 large March hatch B. P. Rock cockerels.
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POULTRY farm for sale, established three years; marketed 10,000 ducklings season just passed; all buildings and appliances in first class shape for carrying on business. Will sell with or without farm. Situated one mile from town of 5,000 inhabitants; two hours from New York. For terms apply to
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POULTRY supplies of every description. Catalogue free. C. E. White, Chestnut Hill, Phila., Pa.

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HORSE SWEEP power, and speed jack in first class condition; can use 1, 2 or 4 horses; tumbling rods, couplings, everything complete; will run bone cutter, feed cutter, or anything up to 4 horse power; is cheap, only \$35. Order at once.
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CHOICE Red cockerels, hatched from selected brown eggs; red all over and red all under, \$1 to \$3 each. Your money back if you want it.
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500 PULLETS and cockerels of different strains for sale. Farm bred and farm raised.
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THE IDEAL shows the hen that laid the egg. The Ideal is a strictly first class article, and is head and shoulders ahead of any make on the market. We can vouch for its accuracy and all the inventor claims for it. M. K. Boyer. Circulars free. Satisfaction guaranteed.
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TURKEYS.

BRONZE toms, large bone and frame, free range. T. D. Schofield, Woodstock, N. H.

WANTED.

WANTED, young man to work on poultry farm with view to learning the business.
Curtiss & Co., Ransomville, N. Y.

MANAGER, experienced all branches poultry, good place now, wants change. Invites correspondence from owners looking for practical man, new place preferred. Address Editor of Farm-Poultry.

YOUNG man will work for his board on up to date poultry farm, hustler, handy with tools.
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A SINGLE MAN to run incubators and tend to the feeding and care of stock. Must have experience on broiler plant. Good place for right party. Write for particulars, with references and wages expected, to Central Poultry Farm, Erie, Pa.

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WHITE Wyandottes, exclusively. Stock recruited yearly from most favorably known breeding yards in the country. Eggs five cents each. Fertility high, vitality of germ and a prime object.
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FOR SALE—1000 choice White Wyandotte pullets, early layers, also some choice cockerels, bred from our choicest breeding stock.
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BUFF, WHITE, and Golden Wyandottes bred from prize winners. If you want something good and guaranteed as such, write your wants to L. H. Brown, Lunenburg, Mass.

40 FIRST CLASS White Wyandotte cockerels, blocky, large size birds, are pure white, have rich yellow legs and beak, with good shaped combs, are from best stock in the country, only \$2 each. Order at once.
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FINE, large, heavy laying, W. Wyand. hens, cockerels. Prices low. Wm. H. Nobis, Raynham, Mass.

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WHITE Wyandottes, choice breeding cockerels bred from winners, typical in shape, good in color, fine in comb and head points, \$2 to \$4 each. Satisfaction guaranteed.
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PARTIDGE Wyand. exclusively, a few very choice pullets. Marcus Mowry, Leicester, Mass.

DUSTON STOCK White Wyandotte cockerels, hatched from eggs from Duston's best pens. Fine healthy birds. Price moderate.
Rev. Duncan McCulloch, Glencoe P. O., Balto., Md.

BUFF Wyandottes, big bargain; 15 good hens, some exhibition, \$1.00 a pair for lot.
Wm. O. Howland, Cambridgeport, Mass.

Cock or Cockerel? (Mrs. J. McG.)—"I have at present a cockerel and a cock, both good birds, running with my flock of 45. Which would you advise me to keep for breeding, as I thought one enough? Would it do any harm to have both running with the flock?" Unless such an arrangement is impossible you would do better to separate a few of your best hens for breeders, and use the better male with them. You doubtless have a preference for one of the birds. I don't know that, strictly speaking, any special harm is done by having two males with a flock, unless they are evenly matched and quarrelsome, but that indifferent method of breeding does not go far in improving poultry.

"Time" for Eggs to Mature. (F. E. B.)—The statement of case here is, "I killed a molting hen, and found in her about three dozen eggs started, from pin head size to that of a large pea." The question is, "Do you know what is the general time for such eggs to mature?" The point of time in such cases cannot, I think, be established. It might be possible (though I do not now recall anything definite in such connection) to learn the rate of development when that was uninterrupted, but I think such investigations would have to deal mostly in conjectures.

Keeping Pullets that Molt for Breeding. (F. E. B.)—In every such matter as that of keeping over old hens, keeping pullets that laid a little and then molted, etc., one of the first points to consider is—what is the alternative? If you dispose of the pullets that are molting now, will it run you short of breeders, or compel you to rely on those which did not molt and may have laid themselves out of good breeding condition before the breeding season? Another point to consider is whether if these pullets that molt are used for breeders the pullets produced from them will be likely to repeat the trick next winter. The causes and laws, if there are such, of irregular molting are but little understood, and it must be regarded as probable that it is to some extent hereditary. There is little doubt that the pullets which molt now and do not lay until near spring, will produce better chicks than the others; but if these chicks have a tendency to irregular molting they would be of little value as winter layers. I have not been able, I realize, to give you definite advice, but if you have time and disposition to investigate such a matter, the suggestions may help you in that. Anything you might contribute to the sum of knowledge on this subject would be appreciated by many poultry keepers.

White Leghorn-White Rock Cross—Increasing Size of Leghorns. (J. N. G.)—"What would be the result of crossing a S. C. White Leghorn cockerel with White Rock pullets? I like the White Leghorns, but find them a little small, and would like to increase their weight. Would the eggs be white or brown?" The cross would be likely to give quite a diversity of types running from Leghorn to Rock shape and size, with the greater part of the progeny about intermediate; but no one can forecast results of crosses with any assurance of accuracy, because individual prepotency sometimes has a strong influence. If larger Leghorns are wanted Mr. G. can easily get them without resorting to crossing. Size can be increased by selection and good feeding in his own flock, or more rapidly by the infusion of blood of a strain of large White Leghorns. The eggs from the cross bred stock would vary in color, with light tinted eggs probably most numerous.

Feeding Meat—All the Hens Will Eat. (F. L. E.)—"I think I have read your advice to let hens have all the meat they will eat. When I tried to get them accustomed to it during the season, they dropped eggs in all sorts of conditions,—due, you told me, to too much meat. I am not troubled that way just now, and wonder, if I keep the meat before them daily, if they will correct it so that they will not turn them out too fast when they begin to lay again." If this correspondent will look up my advice about feeding hens all the meat they will eat, he will find a qualification attached, i. e., all the meat they will eat when not very hungry. It will not do to allow hungry fowls to eat freely of any highly concentrated food, because when hunger is extreme the appetite becomes abnormal, and is not for the time being a reliable



HALF-TONE REPRODUCTION OF COLOR ILLUSTRATION.
On Cover of Humphrey & Son's Catalogue.

regulator of food consumption. The stomach or crop craves the usual bulk of food for a meal, and the animal or fowl is apt to take it of whatever comes to hand. The advice to allow the hens what meat they want, will be found good when the hens are regularly fed a substantial grain ration.

Watery Eggs. (F. L. E.)—Watery and "weak" eggs are generally attributed to poor food, food deficient in the elements which go to make a strong rich egg, and that "stands up" well when broken into a dish.

Vegetables in Addition to Cut Clover. (F. L. E.)—With plenty of good cut clover, fowls should not suffer for vegetable food, but if cabbage, beets, turnips, etc., are on hand or can be obtained at a suitable price, it is better to add to the variety by using them in addition to the clover, or in place of a part of it.

Hens Have Poor Appetites. (F. L. E.)—"It does not seem right to me that my hens do not eat more. I cannot see that any of them are sick. I examine them upon the roosts and usually find them with fairly full crops. Such being the case, is there likely to be anything wrong that will develop later?" It would be hard to answer that without seeing the stock. On general principles we say healthy hens have good appetites, though sometimes the appetite in the molting season is not as good as when the hen is laying. This may be because heavy laying, or some other cause has impaired the vitality of the hen, and molting still further weakening the system, the digestive system is unfavorably affected.

Feeding Raw Onions. (F. L. E.)—Mr. E. has been feeding raw onions at the rate of a quart, cut, to a peck of mash, feeding at intervals of one or two days; and wants to know if that is about right. I have always been shy of feeding raw onions. Fowls are commonly reported, have been for years, to be very fond of them, but I have not found it so in case of fowls which were well fed and had a good supply of less acrid fresh vegetables. Raw onions are objectionable as poultry food because they impart their flavor to both eggs and meat. The oil which produces this flavor is destroyed by boiling, and boiled onions may be fed freely.

White or Buff 'Dottes or R. I. Reds. (W. H. H.)—Mr. H. writes: "I have a few White Wyandottes (not as good as I would like), and a few Buff Rocks, but I like a rose comb fowl best. I have been thinking of changing my White 'Dottes for Buff 'Dottes. Would they be as hardy and as good layers? Although I like a white fowl, their feathers get soiled, and the Buffs would look neater in appearance. Would there be any better merits in R. I. Reds as layers of winter eggs, and as market poultry over B. P. Rocks?" Except as there might be differences in the particular stocks compared, and these obtain in comparisons of the same breed, there would be little difference found between White and Buff Wyandottes in hardiness and productiveness. For winter layers the Reds might have

some advantage over the Rocks in the case of medium to late hatched chicks in that they mature earlier, and thus would probably get to laying earlier. As between Reds and Rocks coming to laying maturity at the same time there would on the whole be little to choose. From the market standpoint I think most stocks of Reds require more improving before they equal average Rocks and Wyandottes.

Specialty Club Meetings at Boston.

The American Cochon Club, Friday, Jan. 17, at 5 P. M.
The New England Plymouth Rock Club, Thurs., Jan. 16, at 10 A. M.
The Blue Andalusian Club, Wed., Jan. 15, 12 M.
The Rhode Island Red Club, Thurs., Jan. 16, 2 P. M.
The New England Light Brahma Club, and the American Buff Plymouth Rock Club will also meet at Boston during this show.

American Incubators Abroad.

A great deal is said these days about the expansion of American trade, and every one who has studied the figures showing the growth in American exports has been astonished at its magnitude.

American incubator manufacturers have not been behind other lines in this respect. This is especially true of the Prairie State Incubator Company, of Homer City, Pa., which has extended its trade to all parts of the world, sending shipment after shipment to distributing points in Europe, Australia, South America, and South Africa, besides sending many smaller lots of one or two machines to individual poultrymen in the same countries. Since the first of August of this year their foreign demand has been especially heavy, and many carload shipments have been made from Homer City.

The new catalogue of the Prairie State Incubator Co. is now on the press, and, by the way, we understand it to be the handsomest book ever printed by an incubator company. Will contain good illustrations showing some of these shipments. These, however, are only a few of the hundreds of fine pictures in this handsome book, which will be sent free to all our readers who request it. Ask for the 1902 catalogue, and copy will be sent as soon as it is off the press. We advise you sending in your name at once.

Address the Prairie State Incubator Co., Homer City, Pa.

Humphrey & Son's Catalogue.

The half-tone reproduction on this page of the picture on the cover of the new catalogue of the Humphrey Green Bone and Vegetable cutter makes a pretty picture, but "isn't half so handsome" as that on the cover itself. The catalogue also is an attractive and useful one containing as it does record sheets for the year, ruled for twelve pens, flocks or varieties, with provision made for recording of much other data besides the number of eggs produced. Opposite the record sheet for each month is a page of "Timely Notes." The part of the book devoted to advertising the Humphrey machines is also interesting, and the book as a whole is a dignified and creditable piece of advertising.

Sharples Cream Separators make cows pay. Book, Business Dairying and Cat 249 free. W. Chester, Pa.

WINNING WINNINGS TODAY, The shows can not begin too early or be too big to find Duston's White Wyandottes

In the winnings. Already this fall has his stock "called time" on the competitors of his customers, IN THE LARGEST AS WELL AS THE SMALLER SHOWS OF THE COUNTRY.

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Keeps you posted on Horticulture, Crop Conditions, Prices of Fruit Products in the Different Markets, Fruit Trade Matters; Diseases of Trees and Plants and Treatment of same. You will like it, if you grow a tree or vine. It deals with every phase of the fruit industry from the field to the market, including varieties, cultivation, transportation,

and the final sale in the market. It tells the growers who they may safely send their goods to in the cities of the country, guards them from the wiles of "snide" commission houses, and gives just the information the grower or professional. Publishes market reports from different cities, giving a summary of prices.

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A Suggestion to R. I. Red Breeders.

Editor FARM-POULTRY:—Inasmuch as there is such a difference of opinion as to the color of Rhode Island Red fowls, I would suggest that the R. I. R. Club offer a prize for the best colored pair at the next Boston show, and agree to adopt that as the standard color. Then have a drawing made by the best artist to be had, and from that a plate, from which can be printed copies, which can be sold, giving us an illustrated standard, and do this before the breed is admitted to the Standard. In my opinion this would do more to further the interests of the breed than anything that could be done.

I am sure every breeder of Reds would be only too glad to have this question settled.
Bangor, Me. T. G. BISHOP.

NEWS NOTES.

Short Items About People and Affairs in the Poultry World.

A win in the novice classes at Boston is an honor only second to a win in the regular open classes.

Mr. F. E. Colby, of Bow Mills, N. H., drops us a line from Amesbury, Mass., to say that at the show there he won on Barred Rocks, 3 cock; 1, 2, 3 hen 94, 93½, 92; 1, 2, 3 pul 93½, 93½, 93; 1, 2, 3 chl 92½, 92½, 92; 1 pen 183½.

The Uhrichsville Poultry and Pet Stock Association has employed Chas. McClave to judge their show, Dec. 31—Jan. 3, at Uhrichsville, O. A good list of cash specials is offered on poultry, and a number of valuable silver cups.

Exhibitors of poultry who have not received a copy of the premium list of the Eastern Iowa Poultry and Pet Stock Association should write for it to the secretary, Henry Regennitter, Davenport, Ia.

W. E. Mack, West Woodstock, Vt., known as the originator of "brown egg White Wyandottes," writes us that in addition to a choice lot of exhibition chicks that are dead white in color he has a good lot of both cockerels and pullets from his special brown egg matings. In mating for brown eggs, Mr. Mack makes show points subordinate to color of eggs, size, and vigor; hence his stock of this line is creamy white in color.

Mr. J. W. Alvis is now editor of the *Inland Poultry*. We are not informed of the reasons which led to the severance of Mr. Alvis' recently established connection with the *Fanciers' Gazette*, but certain statements and allusions in the first number of *Inland Poultry* under his management indicate a lack of good feeling somewhere.

The Oregon State Poultry Association will hold its annual show Dec. 30—Jan. 4. E. J. Ladd, Sec'y.

The Windsor Poultry Club will hold its first annual show at Town Hall, Windsor, Conn., Jan. 28—30.

Premium lists of the Iowa state show are now ready for distribution. Copies may be had by applying to the secretary, I. T. Dabney, Bloomfield, Ia.

We are in receipt of the Sure Hatch Incubator Company's fifth annual catalogue. It is a book of some 166 pages, over 200 illustrations, and contains a vast amount of poultry information, plans for poultry houses, yards, etc., chapters on practical poultry raising, and how to make money on a small investment, etc. Look up their ad., and write them and mention that you saw their ad. in this paper.

Mr. Henry M. Ladd, of Crescent Farm, Cleveland, O., sends us the prospectus of a "Correspondence School of Utility and Fancy Poultry," to be opened Jan. 1. The method to be employed is instruction by mail, four

CORNELL INCUBATORS

— WON —

GOLD MEDAL AT THE PAN-AMERICAN EXPOSITION.

This proved that in the estimation of the judges, we were the equal of anybody in the manufacture of incubators and brooders. Since our exhibit was sent to Buffalo, our experts have devised and perfected, and we are now manufacturing an incubator so far ahead of anything shown by us or anybody else at the Exposition that there is no comparison. The construction and finish are marvels among incubators. In economy of heating we excel. In regulation we are perfect. In ventilation and insulation we defy competition. Our regulator no longer cumbers the top of the machine, but is sunk out of sight, leaving a smooth table top where the egg trays may be set without danger of disturbing the regulation. This incubator must be seen to be appreciated. Write for catalogue of incubators and brooders.

CORNELL INCUBATOR MFG. CO.,

Headquarters and Factory at Ithaca, N. Y. Chicago Office, 315 Dearborn St. 34 Merchants Row, Boston, Mass.

times each month, required readings of various poultry books each month, with recommended readings of other books and papers, a written examination once a month, reports of practical work done by the student at home each month for criticism and advice, and a short apprenticeship at Crescent Farm sometime during the year for practical work under experienced supervision. The terms are \$3 each month, in advance, or \$30 for the course of twelve months in advance.

The winter show of the Kankakee Poultry and Pet Stock Association will be held at Kankakee, Ill., Jan. 13—19. D. T. Helmlich, judge. Premium lists are now ready and may be obtained by applying to the secretary, Fred Freeman, Waldron, Ill.

The dates for the Lynn show are Jan. 7—10. I. R. Elliott, Sec'y.

Mr. H. J. Blanchard, the White Leghorn breeder, of Groton, N. Y., has just put in his plant at a cost of about \$1,000, a complete system of water works with hydrants near each of his twenty-four hen houses. He has also just completed building one new poultry house, and, weather permitting, expects to build another during the winter. Mr. Blanchard says he proposes, if possible, to keep the supply of his White Leghorns up to the demand.

Athol, Mass., Poultry Association have arranged for a fine show Dec. 24—26. A card sent to J. E. Bent, sec'y, will bring a premium list, which contains some very fine cash specials. Judges, A. F. Pierce, C. A. Ballou.

Fitchburg show, Dec. 31—Jan. 3, is offering a good thing for the poultrymen. Send your birds there. J. L. Frost, sec'y.

Last year Messrs. Joseph Breck & Sons sold between seven and eight hundred of the Whitney \$5 Prize Brooders in eight months, and present indications are for a larger demand for them this season.

The Christian County Poultry and Pet Stock Association will hold its first annual show at Palmer, Ill., Dec. 26—28. Officers of this association are C. L. Evans, pres.; C. D. Simpson, sec'y and treas.; board of directors, these two officers and L. I. Smith, all of Palmer; and R. J. Stone, and S. Schrantz, Stonington; H. O. Minnis, Edinburg; Philip Mantz and C. E. Hedges, Pana; W. S. Kirkbride, Rosemond; G. R. Warrack and John Berry, Taylorville, and Fred Grundy, Morrisonville.

Judges at the Detroit, Mich., show will be Sharp Butterfield, H. A. Bridge, J. Y. Bicknell, E. N. Barker, E. S. Comings, E. Hailey, and F. C. Shepherd, on poultry; Jos. Gavli, A. W. McClure, L. W. Schimmel, J. G. Telford, and Chris. Wager, on pigeons; P. E. Crabtree, on hares and pet stock; E. N. Barker, on cats.

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THE LARGEST ASSORTMENT IN NEW ENGLAND.
Prices and Quality Right.

The ninth edition of our "Points for Poultry Raisers," containing much new and valuable information now ready for distribution. Don't fail to send for a copy. Mailed on application.

POULTRY SHOWS.

We will have on exhibition at the Maine State Poultry Show, Lewiston, Maine, Dec. 17 to 20th, and at the Great Boston Poultry Show, Boston, January 14 to 18, 1902, a complete line of the genuine Prairie State Incubators and Brooders in operation, as well as all other poultry supplies and specialties we handle. Make it a point to visit one or both of the above shows. It will repay you many times.

JOSEPH BRECK & SONS, BOSTON, MASS.

Our Club Offers

We will send **FARM-POULTRY**, Semi-monthly, \$1.00 a year, and the following papers at the price opposite each.

OHIO FARMER, \$1.00 weekly, both ONE year for	\$1.00
OHIO FARMER, \$1.00 weekly, both TWO years for	1.80
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SUCCESS and COSMOPOLITAN, three ONE year for	2.00
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SUCCESS and any two of above Magazines, four ONE year for	2.50
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FARM and HOME, 50c., semi-monthly, both ONE year, and one beautiful Art Calendar,	1.00
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READY MIXED.

- 1 Nursery Chick Food.
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- 4 Egg and Feather Producing Food.
- 5 Nursery Duckling Food.
- 6 Growing Duckling Food.
- 7 Fattening Duckling and Gosling Food.
- 8 Laying Duck Food.
- 9 Stock Ducks' Summer Food.
- 10 Growing Gosling Food.

We furnish the balanced ration. Your hens will do the rest. Give them a chance. In every bag you buy you are getting the results of many years of scientific and practical study and labor without charge. You can't afford to be without it. Try it and prove its merits. It will shorten the molt nearly one-half, and will put your birds in elegant show condition. It is not a stimulant or condiment, but a COMPLETE FOOD. Our price is \$1.40 per two bushel bag at factory. Write your nearest agent for prices, and save freight charges. This is the most economical feed you can use. It requires no accessories as green bone, etc., and will produce results you cannot otherwise obtain. Write for our booklet, THE SCIENCE OF POULTRY FEEDING, to any of the following agents:

BOSTON, MASS., Jos. Breck & Sons, No. 51 N. Market St.
NEW YORK CITY, Excelsior Wire and Poultry Supply Co., 23 Vesey St.
PHILADELPHIA, PA., Johnson & Stokes, 217 Market St.
INDIANAPOLIS, IND., Vall Seed Co.
W. A. BOURS & CO., Jacksonville, Fla.
ROCHESTER POULTRY SUPPLY AND SEED CO., Rochester, N. Y.
A. C. WOOLLEY & CO., Atlanta, Ga.
C. E. WHITE, Chestnut Hill, Philadelphia, Pa.
PETALUMA INCUBATOR CO., Petaluma, Cal.
BARTELDES & CO., Denver, Colo.

or, MIDLAND POULTRY FOOD CO., N. E. Cor. 2d and Main Sts., Kansas City, Mo.

Maine State Poultry Show Programme.

Dec. 17-20, 1901.

TUESDAY.

- 9.00 A. M.—Show opens.
2.00 P. M.—Lecture on types, combs, color, feathering, and general character of Asiatic breeds, illustrated by stereopticon from drawings by Sewell. GEO. P. COFFIN.
5.00 P. M.—Banquet at City Hall. Tickets 50c.; including admission to the ball, 75c., obtainable of secretary in advance.
8.00 P. M.—Bone grinding contest, for pie.
8.15 P. M.—Structure of the egg and embryo chick at different stages of incubation, illustrated by stereopticon and calcium light. You can see the chicken start in life.

CHAS. L. CUSHMAN.

WEDNESDAY.

- 9.00 A. M.—Show opens.
11.00 A. M.—Meeting of directors.
2.30 P. M.—Lecture on types, etc., American breeds. D. J. LAMBERT.
7.30 P. M.—Structure of egg.
8.00 P. M.—Lecture—"Why Failures in Poultry Business?"

JOHN H. ROBINSON.

Editor of FARM-POULTRY.

THURSDAY.

- 9.00 A. M.—Show opens.
11.00 A. M.—Annual meeting of members.
2.30 P. M.—Lecture on types, etc., Mediterranean breeds.
7.30 P. M.—Reserved for attraction to be announced later.
8.00 P. M.—Lecture on breeding for egg production.

PROF. G. M. GOWELL,
Maine State Agricultural College.

FRIDAY.

- 9.00 A. M.—Show opens.
2.30 P. M.—Lecture on types, etc., English and French breeds.
4.30 P. M.—Lecture on types, etc., Bantams. Especially designed for school children of Lewiston and Auburn. Admission 10c. to children.
7.30 P. M.—Types of Games, Polish, Hamburgs, and ornamental fowl.
8.00 P. M.—Special attraction to be announced later.

An especial attraction will be the exhibition of White Wyandottes and Plymouth Rocks, the egg record of which has been kept for one and two years by trap nests at the government experiment station at Orono, Me.

Special arrangements have been made with an expert from the south shore to teach caponizing to members.

Novice Classes at Boston.

This year the Boston show makes "Novice" classes for Light Brahmas, Buff Cochins, Partridge Cochins, Barred Plymouth Rocks, White and Buff Wyandottes, and Brown Leghorns. From \$10 to \$15 in cash specials will be offered on each of these varieties. This furnishes the opportunity for the amateur to exhibit his stock in the same show with the big and old time exhibitors, with the opportunity of competing one with another in this show, without being compelled to compete with these old timers.

ANY PERSON WHO HAS NEVER WON A PRIZE AT BOSTON CAN SHOW IN THESE NOVICE CLASSES.

If you know you have good specimens, or if you think you have, this is the way to introduce yourself and your stock to the public. If the birds you exhibit have merit that would have given them a place in a regular class had they been entered there, the judges and breeders present will see it, and other breeders will immediately recognize you as one who is to be considered in future. If you can breed the birds, and those who know birds know it, your standing as a breeder is immediately assured, and it is worth a great deal to any amateur to secure such recognition from judges, breeders, and the public.

In cold weather hens may and frequently do need a considerable excess of fat in their ration.

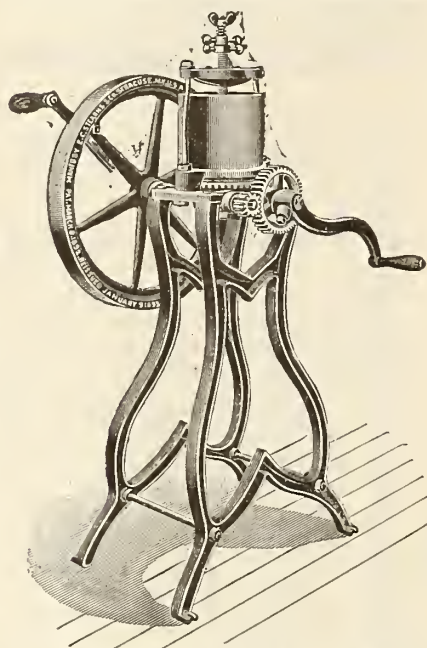
Kansas State Show.

Breeders who are desirous of exhibiting their birds in a show that will sell stock for them should not fail to send for a premium list of the Kansas State Poultry Show, Topeka, January 6-11, 1902. Judges C. H. Rhodes and L. P. Harris are drawing cards, and the association has a well earned reputation for doing things "right" and paying all premiums promptly. Last year's exhibit was one of the largest west of Chicago, and this year it will undoubtedly be much larger. Address Geo. H. Gillies, secretary, Topeka, for all information.

Ball Bearing Bone Cutters,

At this season every egg a hen can lay will find a ready market at a good price, and it is to the interest of every man who owns a flock of chickens to see that they are fed food that will produce those eggs.

We think it practically a settled conclusion in the minds of practical poultrymen everywhere, that green bone is an essential food; and in this connection we want to call your attention to the No. 7 Ball Bearing Bone Cutter, made by E. C. Stearns & Co., Syracuse, N. Y. It has a hopper five inches in diameter, and large enough to take in knuckle joints without reducing them with an axe. It is equipped with a heavy balance wheel on one shaft, and a long crank on the opposite end of the other shaft; the two shafts being



THE STEARNS BONE CUTTER.

connected by heavy gears of such construction that it back gears the bone cutter three to one, and by this construction the operator is able, by using the long crank in turning, to run the balance wheel at such speed that it requires little effort to run the machine, even when cutting the hardest bone, as the momentum of the balance wheel easily carries the cutter head through any unusually hard substance that it strikes, and with the combination of ball bearings in this machine with the back gearing above described, makes this an easy running bone cutter, as well as fast cutting and most satisfactory machine. Don't fail to get one of the new catalogues sent out by this company. They will gladly send you one free, if you will write and send your name, mentioning F.-P.

Beverly, Mass., Show.

The Essex County Poultry Association will hold its sixth annual exhibition Dec. 31-Jan. 3. Premium lists are now ready for mailing. Birds will be shown in our new exhibition coops, which all pronounce the best and handsomest in the country. Our hall is large, and we need more coops; in order to obtain the same members of the association have contributed to the association to be sold, and the proceeds applied to the coop fund, the following trios of good breeding stock:—

John C. Jodrey, Danvers, Silver Wyandottes; Arthur Elliott, Peabody, S. C. W. Leghorns; A. W. Tyler, Peabody, Houdans; W. H. Palmer, Beverly, Barred Plymouth Rocks; A. H. Davenport, Beverly, Buff Wyandottes; Palmer Mausey, Beverly, White

Wyandottes; Frank A. Woodbury, Beverly, White Wyandottes; J. D. Barnes, Wenham, White Wyandottes; H. H. Russell, Wenham, Light Brahmas; Frank Woodbury, 2d, Beverly, Buff Plymouth Rocks; E. F. Trask, Beverly, Buff Plymouth Rocks; F. W. Holden, Beverly, Black Langshans; Otis Caswell, Beverly, Light Brahmas; W. E. Sheen, W. Peabody, S. C. Brown Leghorns; G. A. Addison, Wenham, Silver Wyandottes.

All bred from prize winning stock, and with no disqualifications. Score card with each bird. W. H. PALMER, Sec'y.

Beverly, Mass.

Buying from Breeders of Reputation.

Editor FARM-POULTRY:—I was interested in reading the advice to beginners, on page 412. The writer seems to think that the young man at the Pan-American exposition gave about the worst advice possible, and then gives his advice. He says go to a successful breeder and exhibitor of established reputation and buy of them. I cannot see where his advice is any nearer right than the young man's at the Pan-American, and to prove my statement will mention two circumstances in direct line of his advice that I know to be facts.

A man had fowls from a heavy laying strain; he wished to get new blood; he wrote a breeder of that variety for his prices for good breeders, also if they were a good laying strain. The reply that he received were that he would send him an extra fine cockerel from as good a laying strain as there is in America for three dollars. He forwarded the money and received the cockerel, which, when received, was very weak in his legs, and not good in other points. He wrote the breeder he was not satisfied with the bird. The reply he received was that he paid attention to laying qualities only.

The other was a man who wished to buy a variety of Laced Wyandottes. He wrote a breeder for his price for good breeders. The reply was he could spare him chicks that were choice, well laced, good fair size, not early birds, for \$10 per trio. He forwarded the money. The breeder shipped the trio, stating he had no very early pullets, so had sent one year old hens and an early cockerel, a very fine bird, and the hens were good, and when through their molt would look one hundred per cent better. One of the hens weighed three and three-quarters pounds; the other one evidently had one or two years more growth, weighed three pounds and fourteen ounces. The cockerel had a crooked back.

He wrote the breeder that he had not done as he said he would. He has never received a reply. One of these breeders claims to judge poultry, also to hold several high offices in the poultry fraternity. They draw prizes in the largest shows in the country.

If a beginner buys an incubator he has directions how to run the same; if he buys breeders he has no directions how to straighten crooked backs, or cure weak legs, or grow old hens two or three pounds to standard weight.

Hamden, Ct.

CHARLES C. BUELL.

Royal Blue

WAS THE KING OF Barred Rocks

He won two blue ribbons at NEW YORK. His sons and grandsons have won more prizes at NEW YORK, and BOSTON than all others. My 180 Barred Rocks are fit to win in any company. Those who are winning at all the big shows have the ROYAL BLUE strain.

A. C. HAWKINS, Lancaster, Mass.

Ad. on back cover.

PERFECT POULTRY PICTURES

By SEWELL.

These pictures are Artists' Proofs, size 9 1/2 x 12 1/2, and printed on a splendid quality of heavy coated paper. Competent authorities pronounce them to be the most perfect collection of poultry pictures yet produced. Our readers can secure the whole series at very little expense, as follows: Price for each breed, packed in a strong mailing tube, and postpaid to any address, 15 cents; or any three, if ordered at one time, 30 cents. OR WILL SEND THE WHOLE SERIES, 14 in all, for only \$1.25. To any Old Subscriber who renews and sends us one new subscription to FARM-POULTRY with cash \$2 for both, we will send three of the pictures postpaid free of charge, for their trouble. They are pictured in pairs, and the Breeds are as follows:

Barred Plymouth Rocks.	White Wyandottes.
Partridge Cochins.	S. C. Br. Leghorns.
Light Brahmas.	Wh. F. Blk. Spanish.
White Plymouth Rocks.	Silver Wyandottes.
Pekin Ducks.	Black Minorcas.
Buff Cochins.	S. C. Wh. Leghorns.
Bronze Turkeys.	Buff Plymouth Rocks.

Send all orders with cash or stamps to FARM-POULTRY PUBLISHING CO., 22 Custom House St., Boston, Mass.

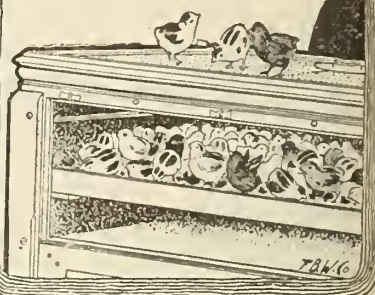
PRAIRIE STATE Incubators and Brooders,

Are used exclusively by the U. S. Government Experimental Farms.

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Largest catalogue published. Contains fifty Colored plates. FREE. Ask for No. 32.

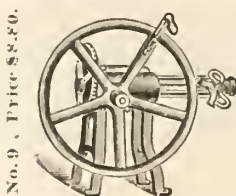
Prairie State Incubator Co.,
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Do it with the FEED COOKER

The Granite State Cooker has many uses beside the cooking of feed for stock. It is the most useful utensil that you can have about the place. At butchering time use it for heating water, rendering lard and making scrapple. On washday for heating water or boiling clothes. Stockmen, Dairymen and Poultrymen find it the best for cooking food and heating water for the stock and for heating the barn or outbuilding. Made in 8 sizes. Fully guaranteed. Write for circular which tells all about this and other useful farm appliances. Sent free.

ALBANY FOUNDRY COMPANY, Albany, N. Y.



No. 9. Price \$8.50.

For Hand Use.

OUR EXPERIENCE OF TEN YEARS

Has enabled us to produce the best line of Bone Cutters on the market. The principle is similar in all our bone cutters—automatic feed, horizontal cylinders, knives cutting across the grain, easy running and durable. We manufacture nine different sizes ranging in price from \$6.75 to \$29.50. Write for particulars on our new large power cutter, the best made. Sent on trial. Send for catalogue.

STANDARD BONE CUTTER CO., Milford, Mass., U. S. A.

COSTS YOU NOTHING

NOT ONE CENT PAID UNTIL TRIED. THE

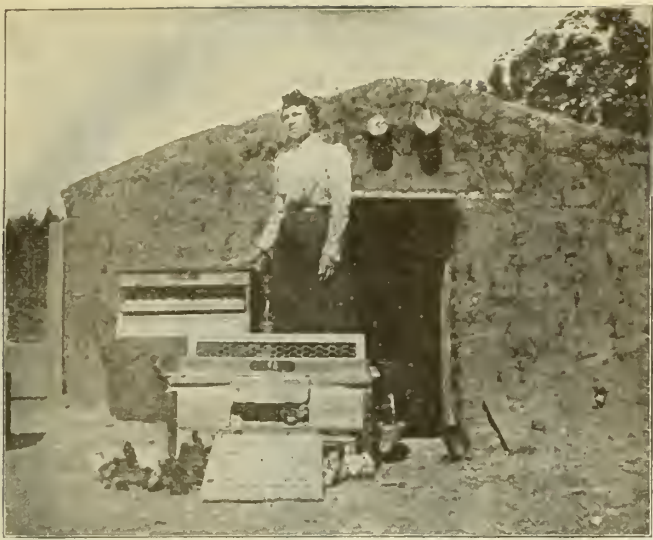
NONE-SUCH INCUBATORS

Send 4 cts. for catalog and special prices.

are sent on 30 days trial. This shows our faith in them. Automatic egg tray. Perfect ventilation. Ample moisture. Self regulators that keep the heat just right. No getting up nights to look after them. So simple a child can run them. Sold at low prices and fully guaranteed.



FOREST INCUBATOR CO., Lock Box N. Forest, O.



Novel Incubator House of Mrs. Ruth Morris, Fairhaven, Kans.

The above illustration shows the incubator house made and used by Mrs. Ruth Morris, on her farm near Fairhaven, Kans. The house is what is known in that part of the country as a "sod house." Large blocks of mud are dried in the sun, and then placed on top of one another with a soft mixture between, very much after the manner of erecting an ordinary brick building. Across the top timbers are placed, which are covered with sod, then a layer of mud, upon which is placed another covering of sod. After the building is erected it is washed off with water, so as to close all cracks and crevices; then grass and flower seeds are scattered all over it, and in a short time the structure has a beautiful covering of green and gray, here and there studded with beautiful blossoms. These houses are dry, clean and comfortable. Many farmers use them for dwellings, while the stables and barns are similarly constructed.

In the foreground is a 100-chick capacity Hen Brooder, and you will observe that the chicks are as lively as those cared for by the mother hen. Mrs. Morris is standing beside a 100-egg capacity Wooden Hen which she has refilled for the sixth time.

Writing to Mr. Geo. H. Stahl, Quincy, Ill., Mrs. Morris says:—"I have just finished my fifth hatch with the Wooden Hen purchased of you last February; averaged 90 per cent of all fertile eggs. Hatched the first sitting in a Kansas blizzard, and got 80 per cent of all fertile eggs."

High Flying Leghorns.

Editor FARM-POULTRY:—Some time ago I saw a statement somewhere that a fence could be built that would confine even the high flying Leghorns. An idea of this kind, *guaranteed*, would be of value to me just now. I have a flock of Brown Leghorns that literally walk right up over an eight foot netting fence. Have strung horizontal wires parallel with the top of the fence, but even this will not hold them. R. S. E.

Wires could be so strung parallel to the top of the fence that the hens could not get either between or around them, but an easier way is to use a narrow strip of wire netting in the same position. Perhaps the result desired—keeping the hens in the yard, could be obtained without this trouble and expense. Hens are not often so persistent in their efforts to get out of their yard unless the yard is small or bare, and there are strong inducements outside.

Size of Boxes for Shipping Poultry.

Now that the poultry season is here a word or two regarding the size of poultry boxes may be appreciated. Firms making a specialty of selling shippers boxes for poultry usually make any sized box ordered, and as a result there is no standard size, almost every shipper having his own idea regarding the boxes, and the result is that poultry comes in boxes of all styles and sizes. Of late seasons, however, many of the larger shippers have

settled on certain sized boxes owing to efforts of the box manufacturers toward a standard size, and we give here-with the sizes most used with the suggestion that all shippers should try and use them: broilers, 16 inches long by 16 inches wide by 4 inches deep, though many prefer the 14 x 14 x 4 box; fryers, 22½ inches long, 15½ inches wide and 6½ inches deep; roasters, 36 inches long,

18 inches wide, and 7½ inches deep; chickens, 32 inches long, 16½ inches wide, and 10½ inches deep; turkeys, 34 inches long, 26 inches wide, and 12 inches deep; ducks, 30 inches long, 20 inches wide, and 7½ inches deep. The above are all inside measurements, and the boxes should be five-eighths of an inch thick on the ends for broilers and ducks, and three-quarters of an inch thick for other grades of poultry, with the sides, tops and bottoms of all three-eighths of an inch. The ends and sides of the boxes should contain one piece only, except those used for turkeys, which should have two pieces, and the tops and bottoms of boxes for all grades should have from two to four pieces of lumber.—N. Y. Produce Review.

North Carolina Show.

The North Carolina Poultry Association, incorporated, will hold its first show at High Point, N. C., Jan. 14—17, 1902. This association is composed of the leading fanciers of the state, among whom are some of her best business men. Premium list ready and full of good prizes; best ever offered in the state. Write to the secretary for one. Fine hall, nice new coops, competent managers, good honest judges—S. T. Lea, and F. J. Marshall—in fact, it will be a fanciers' show strictly. Put us on your list. Best railroad facilities possible. For other information address,

R. L. SIMMONS, Sec'y.

Cherryville, N. C.

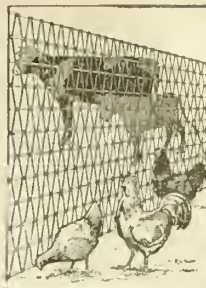
A Gold Mine.

That is what we thought of as we were reading the new catalogue of poultry supplies just issued by our advertiser, Johnson & Stokes, of Philadelphia, who, as many of our readers know, are one of the oldest and best known houses in the country. Their store is a veritable gold mine for the wideawake poultry breeder. The line is one of the most complete ever assembled between the covers of one book. Of course we have not the space to enumerate the thousand and one articles shown, but we are glad to call the attention of our readers to these leaders for which they are wholesale selling agents,—the Cyphers Incubator, Mann's Green Bone Mills, Thompson's Banner Root Cutters, Neponset Roofing, Poultry Fencing, Insecticides, and a very full line of Bee Keepers' supplies.

In their department of Fancy Stock we notice Angora Cats, Scotch Collies, and standard varieties of poultry. Anyone who deals once with Johnson & Stokes is likely to deal again. Write for the catalogue.

Cut Clover.

This is a day of scientific poultry raising. The man who makes his poultry pay, depends largely upon some good, dependable supply house for many aids to his profit. Such a concern is the Harvey Seed Co., whose catalogue has just come to hand. This whole line of supplies is a good one, but the proposition they are offering this year in Cut Clover Hay is particularly interesting, coming as it does when there is a general shortage of this crop. They are fortunate in having an abundant supply of superior quality, and their advertisement shows that they are ready to give their patrons the benefit by selling at a reduced price. We suggest that every reader write for their catalogue, which is sent free. Address Harvey Seed Co., 19 Elliott St., Buffalo, N. Y., and mention this paper.



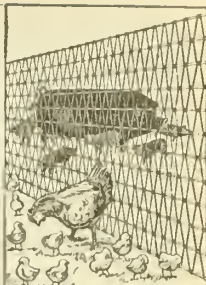
HERCULES POULTRY FENCE

Many times as strong as regular Poultry Netting. Made from the best quality of Galvanized Steel Wire. Set Posts 20 feet apart. It

WILL NOT SAG OR BUCKLE.

Will turn Calves, Hogs, Dogs, Wolves, Rabbits and Poultry. No top or bottom rail required. Size of Mesh, 2 inches. Size of Wire, No. 12 at top and bottom; intermediate line wires, No. 16; mesh wires, No. 18. Sold at Anti-Trust Prices. Also a full line of Farm and Ornate Fence. Send for free Catalogue. Address,

COILED SPRING FENCE CO.
Box 83 Winchester, Indiana, U. S. A.



Chunks and Hunks.

Some bone cutters gouge bones into chunks, hard for fowls to swallow. Others crack bones into splinters and slivers, fatal to fowls. The best bone cutter—that's always the

Stearns

reduces the bone to a fine granular meal, which fowls of all ages enjoy and thrive on. Our

New Model No. 7

With Ball-Bearings,

is without question, the easiest running, most rapid cutting machine made. Don't buy a cutter until you have investigated this new model. Ball-bearings make it turn easily. Back-geared 3 to 1, makes it powerful and rapid. Automatic feed; entirely self-regulating. We make eight other models for hand and power.

"How to Make Poultry Pay" is our new book, full of timely hints and suggestions. May we not send you a copy?

E. C. STEARNS & CO., BOX 3, SYRACUSE, N. Y.

"Don't keep hens—make them keep YOU."

THE EASY BONE CUTTER

HUMPHREY

There is no one thing which has done more to make poultry raising profitable than the feeding of green bone. There is no one thing which has done so much to make feeding green bone possible as the HUMPHREY Green Bone and Vegetable CUTTER.

Why? Simply because the Humphrey is the only machine which a poultry raiser can use without deciding that it is more trouble than it is worth. That's why the Humphrey is so rapidly displacing all other machines. You find no Humphrey machines standing idle in the back yard. People who buy them, use them. It is the simplest in construction (only three working parts) and the easiest turning bone cutter made. It's the open-hopper machine—no chopping bones to pieces with an axe to pack them in a cylinder. If the Humphrey isn't the best machine, you don't want it. Try it and see.

We Guarantee that it will cut more bone, in less time, with less labor than any other bone cutter made; that it will cost less for repairs and give better general satisfaction all around. If it doesn't do it, you get your money back. Try it for yourself and see. It's simply great for cutting vegetables and kraut. Send for our Book; it gives much valuable information, also contains blanks for a year's egg record.

We send it free on request.

HUMPHREY & SONS, Box 25, JOLIET, ILL.

SALES AGENTS.
JOSEPH BRECK & SONS, Boston, Mass.
JOHNSON & STOKES, Philadelphia.
GRIFFITH & TURNER CO., Baltimore.
SURE HATCH INCUB. CO., Clay Center, Neb.
E. J. BOWEN, Portland, Oregon, Seattle, Wash. and San Francisco.

The Dayton, Ohio, Show.

The first annual show of the Dayton Fanciers' Club and the Miami Valley Belgian Hare Association will be held in the Armory of the 3d Regiment O. N. G., Dayton, Ohio, beginning Dec. 31, 1901, and ending Jan. 4, 1902. The Armory is an ideal exhibition hall large enough to accommodate 2000 coops, perfectly ventilated and lighted. It is only two squares from the new union station and the various express companies. The entire show will be cooped by the management. The premiums, both regular and special, will be paid upon the last day of the show. The cash specials run up into the hundreds of dollars. The judges selected are F. B. Zimmer and Ira C. Keller, on poultry; H. L. Keller, Belgian hares and pet stock; and Will E. Kette on pigeons. The premium list is now ready for distribution, and a copy will be sent to any one addressing

Dayton, Ohio. OLIVER L. DOSCH, Secy.

Rochester, N. Y., Show.

The premium list for the great and only Rochester show has made its appearance. It contains the most tempting array of cash, silver cups, and other valuable specials ever offered by any association in New York state. Space forbids entering into details, but an inkling can be gathered from the fact that the state cups of the American Barred and Buff Rock clubs, respectively, have been placed here. Aside from these two valuable trophies, two other handsome silver cups, abundant cash, and other specials have been offered.

Forty dollars in cash, besides a valuable silver cup, will form the bones for contention in the Black Minorca alley. Every class in every variety is thus primed to the bursting point with cash, silver cups, and desirable merchandise. The winners of first and second prizes will receive handsome ribbons, and in addition to these, a large orange ribbon, suitably inscribed, will be placed on the best bird in each variety throughout the poultry and pigeon classes. Pigeons have been well provided for, and a large exhibit is assured; \$150 cash has been offered in addition to six fine silver cups.

The Defender Homing Club and the Rochester Flying Club will each make special exhibits, including the world's record Homer for 150 miles. The judges as chosen are: F. B. Zimmer, Sharp Butterfield, H. J. Quilhot, and Geo. H. Burgott, on poultry; and W. J. Stanton, Geo. E. Peer, and Amos Mack, on pigeons. If the fanciers of this country and Canada are desirous of competing in warm company, where they will receive courteous treatment and care taken of their birds, where cash and silver cups, not promises, are given; where premiums are paid on the second day of the show, and are awarded according to quality of the birds, they must come to and exhibit at the great Rochester show, Jan. 10-16, 1902. JOHN DRECHSLER, Sec'y.

Box 472, Rochester, N. Y.

Perhaps Rats.

Editor FARM-POULTRY:—I am greatly troubled by some animal which persists in digging through the foundation of my hen house. The foundation is made of stones and cemented, and is two feet deep. The animal has in several places dug away the earth and broken the cement between the stones. In one place he tunneled into the center of a pen and there came up. Only one fowl has been hurt. It was attacked under the wing on the breast. The feathers there were torn away and it appeared to have lost a great deal of blood. Can you suggest what animal this is, and give a remedy other than traps, which do not seem to do any good?

E. T.

I should suspect that there was more than one animal, and that the animals were rats. They cause such troubles more frequently than any other vermin. The size of the holes made ought to give some indication of the size of the animal. The fact that but little injury has been done, and that the one fowl attacked was not killed, also suggests that it was attacked by a rat. To get rid of rats when they are shy of traps is not easy. If the ease were mine I would try a good eat in the poultry house at night first.

How Maud Set a Hen.

Maud Muller on a summer's day
Set a hen in a brand new way.

(Maud, you see, was a city girl,
Trying the rural life a whirl).

She covered a box with tinsel gay,
Lined it snugly with new mown hay.

Filled it nicely with eggs, and then
Started to look for a likely hen.

Out of the flock selected one,
And then she thought that her work was done.

It would have been, but this stubborn hen
Stood up and eckled "Ka-doot!" and then

Maud Muller came, and in hurt surprise
Looked coldly into the creature's eyes;

Then tied its legs to the box. "You bet
I know how to make you set."

But still it stood, and worse and worse
Shrieked forth its wrongs to the universe.

Kicked over the box with its tinsel gay,
And ignominiously flapped away.

Then a bad boy, over the barnyard fence,
Tee-heed: "Say, Maud, there's a differencee

"Tween hens, you know, and it is that
One says 'Ka-doot,' and one 'Ka-dat!'"

Then Maud recalled that the ugly brute
She tried to set had said "Ka-doot!"

And ever since that historic day
She blushes in an embarrassed way

To think of the hobble she made once when
She tried to set a gentleman hen.

—Toronto Star.

Annual Meeting of Buff Rock Club.

The fifth annual meeting of the American Buff Plymouth Rock Club will be held at Boston, at 2 P. M., Thursday, Jan. 16, 1902, in connection with the Boston Poultry Association show.

We hope to see as many members as can present at that time.

A fine list of specials is anticipated, which, in addition to the regular premiums, should draw out a large entry. We expect all our former exhibitors, and hope for many others.

To those not already members, we herewith invite you to join us at once, that you may be eligible to compete for the above. Membership fee and annual dues of \$1 each should be sent to

W. C. DENNY, Sec'y.

Rochester, N. Y.

He Bought Red Lice With Straw.

A subscriber in Maine writes: "I bought some straw for litter for my hens of a neighboring farmer. Have used it two weeks, and now find that it was full of little red lice. It was taken from the hay mow, and his hens have free access to the barn. I wish to know if they are injurious to hens, and, if so, what is the best method of getting rid of them?"

These lice, or mites, if numerous will be likely to prove very troublesome to the hens. Thoroughly clean out all houses, burn straw and litter, and disinfect the houses by fumigating with sulphur or tobacco. At this season it would not be advisable to use white-wash unless in a period of warm weather when it could be expected to dry quickly, but the house should be thoroughly dusted with a mixture of lime, sulphur and carbolic acid, prepared as follows:—To half a bushel of fresh thoroughly air slaked lime add ten pounds of powdered sulphur and a fluid ounce of carbolic acid. Mix thoroughly by stirring with a stick.

White Comb.

Editor FARM-POULTRY:—I have some White Leghorn cockerels whose combs are turning white. The disease seems to begin at base of comb, and spread to the tips. Can you tell me what the disease is, and what to do?

G. W. BURLINGAME.

Chepachet, R. I.

The disease is "white comb," of which "Farm-Poultry Doctor" says:—

This disease is caused by bad sanitary surroundings, such as close air, lack of sunlight, and fostered by absence of green food. It is a disease of city rather than country. * * * Treatment can seldom be given because it means removal to fields, with proper housing and feeding. The local conditions should be met by the daily application of an ointment of oleate of zinc one heaping teaspoonful to one-half cup of vaseline.



This is the trade mark stamped on every sheet of **MF Roofing Tin**—the best roofing tin made. It is evidence that it has the heaviest and richest coating of pure tin and new lead, dipped by the palm oil process, and manufactured entirely by *hand* labor. **MF** is impervious to rust—will last a lifetime. Ask your roofer for **MF Roofing Tin**—or

write to W. C. CRONMEYER, Agent, Carnegie Building, Pittsburg, for illustrated book on roofing.

AMERICAN TIN PLATE COMPANY, New York.

Millions For Eggs

The American people spend millions for eggs every month in the year. Are you getting your full share of all this money? Perhaps you would like a little more of it. You can double your egg profits by putting a

MANN'S 1902 Model BONE CUTTER

in your poultry yard. We say Mann's because the new Mann's is the cutter which will give satisfactory service in every way.

Read Our Broad Claims. The Mann's runs easier than any other machine (if not don't keep it) because it adapts itself automatically to the power operating it. A boy, a woman or a man can turn it with equal ease. You can set it to run as easy, to cut as fast or as slow, as coarse or as fine as you like. It cuts hard bones as easily as soft bones, because the self-governing feed adjusts itself to them without attention from the operator. The Mann's is easy to clean; just pull one latch and the working parts are all exposed. The Mann's makes more and better feed from a given quantity of bone than does any other make, because it cuts all the bone and all adhering meat and gristle, allowing none to escape to clog the machine, making no shivers to endanger the lives of your fowls. The Mann's special cylinder and cutting device do it. The Mann's cuts more rapidly than others, if not don't keep it. Its knives are in action all the time (not waiting in the empty air half the time). The machine that never stalls. The Mann's has new design, open hopper, enlarged table, new device to control feed. Set it to suit any strength. Never clogs.

10 Days Free Trial. No money asked for until you prove our guarantee on your own premises, that our 1902 Model will cut any kind of bone, with all adhering meat and gristle, faster and easier and in better shape than any other type of bone cutter. If you don't like it send it back at our expense.

OUR NEW CATALOGUE explains the How and Why; it describes in detail all our late improvements. You'll be glad to get a copy—we'll be glad to send it.

F. W. MANN COMPANY,
Box 55, Milford, Mass.
Also manufacturers of Clover Cutters,
Corn Shellers, Granite Crystal Grit,
Automatic Swinging Feed Trays, Etc.

SHOW DATES.

Important Notice to Secretaries and Other Officers and to Members of Poultry Associations Holding Shows.

We desire to have the list of poultry show dates published in this paper complete and correct in every particular. It is as much to your interest as to ours that it should be so. Copies of each issue in which the list appears will be sent to all secretaries of associations, and we urgently request secretaries to note any error or omission and furnish correction promptly. Especially do we request that in case of a change of dates or in case a projected show is abandoned notice be sent us promptly.

Readers of the paper who are members of associations, who may note errors in regard to shows in which they are interested are requested to have the correction furnished us by the secretary or other authorized officer of the association. We cannot make corrections on unofficial information.

Again, as last year, FARM-POULTRY will publish lists of awards in full for all associations complying with the reasonable and advantageous conditions we offer. Any secretary who has failed to receive our proposition should write for it at once. Names of shows of associations accepting our proposition are printed in full faced type when notice to that effect is sent us. Persons interested in shows not thus marked, and desiring to have awards for same published in this paper should not write to us about the matter, but should bring it to the notice of their association. Our proposition is made to all alike, is fair and generous; it speaks for itself. We have neither time nor inclination to urge it on associations which are indifferent to it, or to follow up the latter with secretaries who fail to present it to their associations.

New England States.

Dec. 17-20, **Lewiston, Me.** Geo. P. Collin, Freeport, Me., Sec'y.
Dec. 17-20, **Melrose, Mass.**
Dec. 17-20, **New Bedford, Mass.** Geo. A. Munson, So. Dartmouth, Sec'y.
Dec. 24-26, **Athol, Mass.** J. E. Burt, Sec'y.
Dec. 25-27, **No. Abington, Mass.** Jas. H. Dwyer, Sec'y.
Dec. 31-Jan. 2, **Wallingford, Conn.** H. Haywood, Sec'y.
Dec. 31-Jan. 3, **Beverly, Mass.** W. H. Palmer, S'y.
Jan. 1-3, **Fitchburg, Mass.** J. L. Frost, Sec'y.
Jan. 7-10, **Methuen, Mass.** John S. Crosby, Sec'y.
Jan. 14-18, **Boston, Mass.** A. R. Sharp, Taunton, Mass., Sec'y.
Jan. 21-24, **Manchester, N. H.** W. B. Sanford, Sec'y.
Jan. 21-25, **West Brookfield, Mass.** E. L. Richardson, Sec'y.
Jan. 22-24, **Stamford, Ct.** N. R. Jessup, Sec'y.
Jan. 23-24, **Plymouth, Mass.** Arthur R. Gledhill, S'y.
Feb. 4-6, **Bristol, Conn.** O. J. Bailey, Sec'y.

Middle States.

Dec. 10-17, **Newark, N. J.** Fanciers' Ass'n of New Jersey, Howard Van Syckle, Lebanon, N. J., S'y.
Dec. 17-20, **Elmhurst, N. Y.** H. E. Benedict, Sec'y.
Dec. 24-27, **Mattawan, N. Y.** H. V. Milsbaugh, Walden, N. Y., Sec'y.
Dec. 28-Jan. 2, **Philadelphia, Pa.** Jas. Cheston, Jr., 720 Girard Bldg., Sec'y.
Jan. 6-10, **Meadville, Pa.** H. L. Lamb, Cambridge Springs, Pa., Sec'y.
Jan. 7-10, **Girard, Pa.** H. C. Rathgeber, Sec'y.
Jan. 10-16, **Rochester, N. Y.** John Drechsler, S'y.
Jan. 13-17, **Warren, Pa.** J. H. Bowden, Sec'y.
Jan. 14-18, **New York, N. Y.** H. V. Crawford, Montclair, N. J., Sec'y.
Jan. 21-25, **Harrisburg, Pa.** John R. Gore, Royaltown, Pa., Sec'y.
Jan. 28-31, **Salamanca, N. Y.** J. E. Mable, Sec'y.
Feb. 17-22, **Pittsburg, Pa.** J. C. Moore, Sec'y.

Near West States.

Dec. 12-17, **Wooster, O.** W. A. Lott, Sec'y.
Dec. 16-20, **Cynthiana, Ind.** C. V. Emerson, S'y.
Dec. 16-21, **Macomb, Ill.** W. E. Thompson, Sec'y.
Dec. 16-22, **Bloomington, Ill.** Israel Root, Sec'y.
Dec. 17-19, **Red Bud, Ill.** Mrs. Althea Smith, S'y.
Dec. 17-19, **Robinson, Ill.** C. H. Musgrave, Hutsonville, Ill., Sec'y.
Dec. 17-20, **Eldorado, O.** A. C. Carney, Sec'y.
Dec. 17-20, **Holland, Mich.** C. St. Clair, Sec'y.
Dec. 17-20, **Grand Rapids, Mich.** W. J. Demel, Sec'y.
Dec. 17-20, **Danville, Ill.** A. R. Harper, Sec'y.
Dec. 17-20, **East Palestine, O.** F. W. Reese, Sec'y.
Dec. 17-20, **St. Johns, Mich.** C. E. A. Bunge, S'y.
Dec. 17-21, **Poseyville, Ind.** C. V. Emerson, Owen-ville, Ind., Sec'y.

Dec. 17-21, **Middletown, O.** Ollie Sebald, Sec'y.
Dec. 18-20, **Richwood, O.** E. S. Curry, Sec'y.
Dec. 19-23, **Crawfordsville, Ind.** Geo. S. Carver, Sec'y.
Dec. 23-28, **Lincoln, Ill.** Henry Stringer, Sec'y.
Dec. 24-27, **Detroit, Mich.** W. H. Mercer, Sec'y.
Dec. 24-28, **Salem, O.** H. E. Phillips, Sec'y.
Dec. 25-28, **Owosso, Mich.** L. G. Brewer, Sec'y.
Dec. 26-Jan. 1, **Sterling, Ill.** L. A. Kline, Rock Falls, Ill., Sec'y.
Dec. 26-Jan. 2, **Columbus, O.** F. A. Brigel, Sec'y.
Dec. 27-Jan. 1, **Peoria, Ill.** H. C. Schwab, Sec'y.
Dec. 30-Jan. 3, **Georgetown, Ill.** L. Reynolds, S'y.
Dec. 30-Jan. 4, **LaPorte, Ind.** A. R. Peterson, Sec'y.
Dec. 30-Jan. 4, **La Crosse, Wis.** E. P. Walcott, S'y.
Dec. 31-Jan. 3, **Ypsilanti, Mich.** L. M. Olds, Sec'y.
Dec. 31-Jan. 3, **Wausau, O.** A. W. McConnell, S'y.
Dec. 31-Jan. 3, **Uhrichsville, O.** D. C. Peoples, Sec'y.

Dec. 31-Jan. 4, **Stoughton, Wis.** F. M. Jensen, S'y.
Jan. 1-4, **Sycamore, O.** A. E. Beumington, Sec'y.
Jan. 2-6, **Painesville, O.** F. G. Johnson, Sec'y.
Jan. 2-7, **Dayton, O.** Oliver L. Dorsch, Sec'y.
Jan. 6-9, **Galena, Ill.** F. H. Turner, Sec'y.
Jan. 6-10, **Charleston, Ill.** Mrs. Henry Gaiser, Sec'y.

Jan. 6-10, **Frankfort, Ind.** F. G. Alford, Sec'y.
Jan. 6-11, **Joliet, Ill.** C. E. Ellsworth, Sec'y.
Jan. 6-12, **Belvidere, Ill.** B. R. Lucas, Sec'y.
Jan. 7-10, **Battle Creek, Mich.** L. G. Nichols, Sec'y.
Jan. 7-11, **Charleston, Ill.** Mrs. Henry Gaiser, S'y.
Jan. 7-12, **Milwaukee, Wis.** H. L. Kasten, Sec'y.
Jan. 8-11, **Akron, O.** B. J. Hill, Sec'y.
Jan. 8-14, **Greencastle, Ind.** J. E. Vermilion, Sec'y.
Jan. 13-19, **Whitewater, Wis.**
Jan. 14-17, **Pontiac, Mich.** Daniel Thomas, Sec'y.
Jan. 14-17, **Flint, Mich.** Frank Bovee, Sec'y.
Jan. 14-18, **Fort Wayne, Ind.** Charles G. Pape, S'y.
Jan. 14-18, **Tipton, Ind.** John Laugan, Sec'y.
Jan. 14-18, **Cincinnati, O.** A. E. Brooks, Sec'y.
Jan. 17-22, **Naperville, Ill.**
Jan. 20-25, **Chicago, Ill.** F. L. Kimmey, 335 Manhattan Building, Sec'y.

Jan. 20-25, **Oshkosh, Wis.** J. C. Ford, Sec'y.
Jan. 22-25, **Cambridge, O.** J. C. Sarchet, Sec'y.
Jan. 23-25, **Appleton, Wis.** J. A. Olmstead, Sec'y.
Jan. 23-27, **Wabash, Ind.** B. F. Clemens, Sec'y.
Jan. 26-31, **Marysville, O.** M. L. Myers, Sec'y.
Jan. 27-31, **Fremont, O.** Richard P. Bowles, Sec'y.
Jan. 27-31, **Muskegon, Mich.** P. P. Stoketee, Sec'y.
Jan. 27-Feb. 1, **Shelby, O.** E. P. May, Sec'y.
Jan. 30-Feb. 1, **Napoleon, O.** E. J. Davis, Sec'y.
Feb. 3-7, **Alpena, Mich.** Chas. L. Whitney, Sec'y.
Feb. 4-7, **Saginaw, Mich.** F. E. Will, Sec'y.
Feb. 4-8, **Delavan, Wis.** E. J. Scott, Sec'y.

Central West States.

Dec. 16-19, **Valley Falls, Kans.** E. S. Mitchell, Sec'y.
Dec. 17-20, **Mason City, Ia.** Jno. D. Reeler, Sec'y.
Dec. 20-21, **Onaga, Kans.** Mrs. Minnie Chambers, Sec'y.
Dec. 23-25, **Manhattan, Kans.** W. H. Lamb, S'y.
Dec. 23-28, **Des Moines, Ia.** Chas. H. Clarke, Sec'y.
Dec. 26-28, **Delphos, Kans.** E. M. Swain, Sec'y.
Dec. 30-Jan. 4, **Webster City, Ia.** Fred Hahne, S'y.
Dec. 30-Jan. 4, **McCook, Nebr.** B. G. Gossard, S'y.
Dec. 30-Jan. 4, **Salina, Kans.** L. D. Arnold, Sec'y.
Dec. 31-Jan. 3, **Butler, Mo.** C. A. Allen, Sec'y.
Dec. 31-Jan. 3, **Bloomfield, Ia.** Iowa State Poultry Ass'n, S. J. Henderson, Sec'y.
Dec. 31-Jan. 3, **Burr Oak, Kans.** Thos. Kirk, Jr., Sec'y.
Dec. 31-Jan. 3, **West Union, Ia.** G. W. Van Allen, S'y.
Dec. 31-Jan. 4, **Waterloo, Ia.** C. A. Hollis, Indson, Ia., Sec'y.

Jan. 6-11, **Topeka, Kans.** George H. Gillis, Sec'y.
Jan. 6-12, **Marshalltown, Ia.** H. C. Hansen, Sec'y.
Jan. 6-12, **Dubuque, Ia.** J. S. Roberts, Sec'y.
Jan. 7-10, **Davenport, Ia.** Henry Regenmiller, S'y.
Jan. 8-12, **Muscatine, Ia.** G. M. Porter, Sec'y.
Jan. 10-14, **Nashua, Ia.** J. I. Holcomb, Sec'y.
Jan. 13-16, **Aurelia, Ia.** H. B. Green, Sec'y.
Jan. 13-18, **Cedar Rapids, Ia.** E. E. Richards, Sec'y.
Jan. 13-18, **Lincoln, Nebr.** L. W. Garroute, Sec'y.
Jan. 14-18, **Colleyville, Kans.** A. M. Ragle, Sec'y.
Jan. 19-22, **Iowa City, Ia.** H. W. Fairall, Sec'y.
Jan. 21-24, **Kingfisher, O. T.** H. F. Stephenson, S'y.
Jan. 27-28, **Plainville, Kans.** M. Millott, Sec'y.
Jan. 28-31, **Onawa, Ia.** C. M. Willey, Sec'y.

Far West States.

Dec. 26-28, **Roseburg, Ore.** F. B. Hamlin, Sec'y.
Jan. 7-12, **Seattle, Wash.** Chas. McAlister, Sec'y.
Jan. 13-18, **Denver, Colo.** C. W. Stidger, Sec'y.
Jan. 16-18, **Laverne, Minn.** N. R. Reynolds, Sec'y.
Jan. 21-24, **Fargo, N. D.** S. F. Crabbe, Sec'y.
Jan. 28-Feb. 1, **Fort Collins, Colo.** W. H. Pring, S'y.
Jan. 28-Feb. 1, **Greeley, Col.** R. F. Armstrong, S'y.
Jan. 30-Feb. 2, **Mitchell, S. D.** C. C. Bras, Sec'y.

Southern States.

Dec. 17-21, **Birmingham, Ala.** Ollie Esdale, Sec'y.
Jan. 6-11, **Louisville, Ky.** John H. Good, Sec'y.
Jan. 7-10, **Charlotte, N. C.** Jno. B. Taylor, Sec'y.
Jan. 11-17, **High Point, N. C.** R. L. Shumons, Sec'y.
Jan. 23-30, **Charleston, S. C.** Geo. F. Weston, Biltmore, N. C., Supt.

Canada.

Jan. 21-23, **Owen Sound, Ont.** R. B. Cameron, Sec'y.

Improvement in Popular Remedies.

The Reliable Remedy Company, of No. 497 Third Avenue, New York city, proprietors of Eggs-Kum, Roupino, and Seabieble, announce that they have recently made an improvement in their Roupino, whereby impurities in the water are precipitated to the bottom, so that even when the drinking water is impure there is no danger possible from that source to the fowls using it. This is an important and much needed innovation.

The strength of their Eggs-Kum, they also announce, has recently been increased one hundred per cent, and the addition of important chemicals to their Seabieble, (a guaranteed cure for chicken pox, scaly shanks, etc.) has had the effect of changing its color and increasing its efficacy.

Agents are wanted everywhere for these remedies, which are "jobbed" in Boston, New York, Buffalo, and Chicago, by the Cyphers Incubator Company.



Make Your Hens Lay, with Bowker's Animal Meal

It makes them lay, by furnishing all the material to make eggs with. It also makes chickens grow strong and active. It is the best and cheapest of all poultry foods. Enough for ten hens, three months, \$1.00; four times as much, \$2.25. We send booklet, "The Egg," free. THE BOWKER COMPANY, Dept. No. 4, 43 Chatham St., Boston, Mass.

The Best of all foods for fowls is Bowker's Animal Meal, a clean, sweet combination of thoroughly cooked meat and bone, easily and quickly digested. It makes hens lay, and chickens mature early, and grow strong and lusty. For sale by dealers generally.

Sell Six 50 Egg Size At \$5.00 Each. AND GET ONE FREE LIKE IT FREE Sell Five 100 Egg Size At \$9.50 Each.	SELF-REGULATING INVINCIBLE HATCHER CO.	Sell Four 200 Egg Size At \$14.50 Each. GUARANTEED FREE 2 YEARS FREE Hatch Every Good Egg. Send for No. 1 Catalogue. SPRINGFIELD, O.
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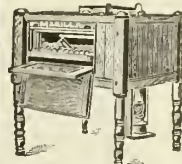
Hazelbrook Poultry Yards,

GERMANTOWN, PHILA., PA.

WHITE and BUFF WYANDOTTES, WHITE and B. P. ROCKS, and imported BLACK MINORCAS. Stock for sale. No circulars. Write for wants.

The Best Work

can be done only by a good machine—the best machine. We feel certain that if you examine the



Marilla

Incubators and Brooders
(Hot Water or Hot Air.)

you will be convinced that they will give you better satisfaction than any other machines made. We sell them with that guarantee. Your money back if you want it. They have a regulator that regulates and you don't have to adjust it every other day. Send 4 cents postage for fine catalogue. It will interest you.

Marilla Incubator Company, Box 15, Rose Hill, N. Y.

The Gold Medal

was awarded

HARDING'S POULTRY FOODS

at Pan American Exposition, on account of "The Highest Standard of Excellence." The Judges of award knew a good thing and when they came to Harding's exhibit, that settled it. Harding's Foods, mentioned below, are now the acknowledged leaders: **Harding's Baby Chick Food, Harding's Meat Meal, Harding's Beef Scrap, Harding's All-Clover Meal, Charcoal, Bone, Shell, Tobacco Dust, etc.** Catalogue FREE.

Geo. L. Harding, Mfr., Box 555, Binghamton, N. Y.

General Distributing Agent for Wyant's Climax Lice Exterminating Nest Eggs. Price 75c per doz.

One Hen One Day One Mill

It costs a mill a day—one cent every ten days—to make a hen a lively layer when eggs are high, with **SHERIDAN'S CONDITION POWDER**. Calculate the profit. It helps young pullets to laying maturity; makes the plumage glossy; makes combs bright red.

Sheridan's CONDITION Powder

fed to fowls once daily, in a hot mash, will make all their feed doubly effective and make the flock doubly profitable. If you can't buy it we send one pack, 25 cts.; five, \$1. A two pound can, \$1.30. Sample poultry paper free. I. S. JOHNSON & CO., BOSTON, MASS.

Many successful poultry raisers have learned by experience that the cause of a very bountiful supply of eggs in the fall and winter, when prices rule high, is proper care, feeding, and management, which they have learned by experience includes the use in the mash food, once daily, **SHERIDAN'S CONDITION POWDER**. It helps to mature young pullets so they will lay when five or six months old.

They Succeed Best

In keeping poultry for profit, who study cause and effect carefully.

No matter what kind of foods you use, **SHERIDAN'S POWDER** is absolutely necessary to cause the desired effect, namely, a well filled basket of eggs daily. It gets old hens over molting period quickly; it develops to laying maturity the young pullets. It causes perfect assimilation of the food elements needed to effect growth, prevent disease, and produce eggs. Costs one mill a day per hen.

Water Fowl Club.

The annual meeting of the Water Fowl Club of America was held, in connection with the Pan-American Exposition poultry show, at 12 M., Thursday, Oct. 24th, 1901, in superintendent Converse's office.

The president, T. Farrer Rackham, was in the chair, and the following members were present: Theo. F. Jaeger, sec'y; J. Fred Crangle, Edgar Briggs, E. E. Smith, Chas. McClave, W. A. Smith, W. R. Curtiss, M. T. Burn, C. J. Ross, S. E. Wurst, and M. F. Delano.

The minutes of the previous meeting were accepted without reading, as they had been printed and mailed to all members.

The following water fowl breeders were elected to membership: W. W. Bulette, M. D., M. L. Halloway, J. Browning, Geo. Denison, Martin R. Maurer, George M. Gardiner, M. T. Burn, A. W. Hillis, A. G. Oliver, N. A. Shetler, J. D. W. Hall, S. E. Wurst, C. J. Ross, W. R. Curtiss, and Mrs. M. A. Kirkpatrick.

The report of the treasurer showed the club to be in a sound financial condition.

An invitation from a publisher to make his paper the official organ of the club was tabled.

An open debate now occurred over the question of needed changes in the A. P. A. Standard of Perfection as pertaining to water fowl. Nearly all present took part, and Mr. J. Fred Crangle was appointed a committee of one to suggest following changes to the A. P. A., and see if same would be granted to the club.

1st. That black on the bean of females in all white breeds of ducks be stricken from the list of disqualifications, but be made a severe cut.

2d. That the Standard shall distinctly say that the Call and East India ducks are Bantam ducks, and the smaller they are the better.

3d. That 3 points cut per pound for underweight in a duck should be changed to 2 points, to conform with other poultry.

4th. That the standard weight of the Pekin be raised a pound all round to conform with the Rouen.

5th. That the China goose be declared a small goose, and that the weight clause reads under 14 lbs. This will enable the small pure Chinas to win over African crosses.

6th. It was the sense of the meeting that white primaries in Toulouse should disqualify.

The matter of official club ribbons then came up, and it was voted to give yearly five ribbons to each state having ten members, the same to be awarded to the show receiving a majority vote of the members of each state. This vote to be called by the state vice-president.

The matter of the New Jersey Poultry, Pigeon, and Pet Stock Association offering the state club trophies in their advertisements of their show to be held at Trenton, was then introduced. Mr. Jaeger stated that these ribbons were a personal gift to the Trenton people by himself, and that they were therefore acting under a misunderstanding in offering the ribbons as club trophies. The secretary was instructed to write to the secretary of the N. J. P. P. and P. S. Asso, to this effect, and request him to change the wording of their advertisements.

It was further voted that no official club cups or ribbons could be offered, excepting by vote of the executive committee, and that no individual member be allowed to donate ribbons with the club name thereon.

The election of officers followed, and the following were elected for the ensuing year. T. Farrer Rackham, pres.; Chas. McClave, gen'l vice-pres.; Maurice F. Delano, sec'y; J. Fred Crangle, treas. These officers together with W. A. Smith, M. T. Burn, and E. E. Smith form the executive committee.

A committee of five was appointed to report next day a list of five judges representing the various sections of the country, and who are officially endorsed and recommended by the club to all associations as being capable and acceptable judges of all water fowl.

The meeting then adjourned.

The committee on judges handed the following list to the secretary.

Dr. F. D. Kendall, Columbia, S. C., for the south; Chas. McClave, New London, Ohio,

for the west; M. T. Burn, Tilsonburg, Ontario, for Canada; W. J. Smith, Whitney's Point, N. Y., and J. Fred Crangle, Simsbury, Conn., for the east.

All breeders and lovers of water fowl are cordially invited to join our club, and help add to the widespread popularity the beauty and utility qualities of our web footed friends are fast winning for them.

Application blanks and copy of the club catalogue will be promptly mailed to all requesting same of

MAURICE F. DELANO, Sec'y.

Millville, N. J.

Fattening and Feeding Questions —Should Read As Well As Subscribe.

Editor FARM-POULTRY:—I am a regular subscriber to your paper. Would you kindly answer the following questions:—

1. What variety or breed of fowls attain the greatest weight in the shortest time; i. e. from the time they are hatched till they are about four or five months old?

2. What variety of food would you feed so as to attain the greatest weight in the shortest time?

3. Would you feed it cooked or raw?

4. How often would you feed the fowls?

5. In what proportions would you feed for a dozen fowls? G. L. W.

P. S. Enclosed find stamp for reply.

1. What would you feed laying hens?

2. How much per dozen?

3. How often?

Light Brahmas generally would make greater weights up to the ages specified than other breeds, though numerous cases could be cited where quick growing chicks of smaller breeds had made better weights up to four or five months than average Light Brahmas.

For general information on the matters included under the other questions, I must refer Mr. W. to the files of the paper. I find on inquiry in the subscription department that his subscription dates from Feb. 1, 1901. During the time he has been subscribing to the paper all the matters about which he asks information have been discussed, and some of them at considerable length. Possibly these things did not interest him until now, and so he overlooked them. If he will take his file of F.-P., and beginning with February 1st read over all articles and items pertaining to the topics of his questions, he will get in the aggregate a much more satisfactory explanation of the subject than I could give him in direct replies—necessarily brief—to his questions. He will find especially interesting such articles as "Talks on Feeding," March 1 and 15; "Hatching and Feeding Chicks," April 1 and 15; "Feeding Table Waste to Poultry," September 15; and the various comments on feeding, in Answers to Questions and in short articles in the March 1 number. Besides these he will find many mentions of topics of evident interest to him in various issues of the paper.

Start your advertising early. You cannot be too early now, and if you delay much longer you may be too late for many good orders.

Hindu vs. American.

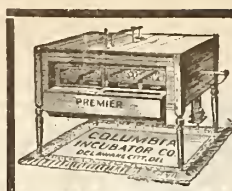
American paint makers have been endeavoring, for some years past, to introduce their goods in India. It is only within a short time that they have discovered the reason of their failure. It seems that the Hindu paint buyer has been accustomed to buy his paints dry packed in a certain form of package with a certain style of label. When the package and label are all right, he argues that the contents must be, and *vice versa*. Doubtless his prejudices will henceforth be considered, and if label and package are all that he requires to be right, he will be amply accommodated.

This sort of prejudice seems to be inherent in the human mind, whether in India or America; we are too prone to regard the manner and ignore the matter. American paint consumers, for example, during the past fifty years have been using zinc white paints at a rate that has rapidly risen to stupendous figures, but they have generally insisted that the label shall brand the contents as "zinc white," and paint manufacturers have generally been willing to accommodate them.

But of late there has been a growing tendency among the latter to drop the zinc-white title and substitute brands which shall be more nearly exact. They rely on the consumer to buy the paint on its merits rather than on its label, and I, for one, believe they will not be disappointed in their faith that the American is American and not Hindu.

Among the multitude of competitors for trade the consumer is apt to be confused, but the chances of getting good paint are a hundred to one, if the buyer will remember three things: paint that is too cheap is usually worth no more than its cost; paint that contains no water and no oil except pure linseed oil is generally all right in other respects; pure oil paint that contains a preponderance of zinc white is economical and durable.

STANTON DUDLEY.



We're Not Afraid TO LET YOU SEE THE New Premier Incubator. You can have one in your home and TRY IT. They are so universally successful that you will want to keep the one we send you. They burn less oil, are simpler and safer than any incubator made. We say this because we know our machine, and spend all our time and money in making them perfect. We also make and sell the **Simplicity Incubators**. We send detailed plans for building Brooders, Poultry Houses, etc., to any one for only 25c. Our handsome Art Book of the Poultry and Incubator industry sent for 5c. Won't you write for it. COLUMBIA INCUBATOR CO., 13 Arch Street, Delaware City, Del.

CONKEY'S ROUP CURE

Cure Guaranteed.

The only remedy positively known to cure Roup in all its forms as long as the fowl can see to drink. Simply put the cure in drinking water, and the fowl will take its own medicine. For Canker, especially in pigeons, this remedy exceeds all others. One 50c. package makes 25 gallons of medicine. Directions with every package. If this fails to cure we refund money. Postpaid, small size, 50c.; large size, \$1. PETALUMA INCUBATOR CO., Petaluma, Cal., Pacific Coast Agents. Mention Farm-Poultry. Don't send stamps. Eastern Wholesale Office No. 8 Park Place, New York City. G. E. CONKEY & CO., Cleveland, Ohio.

FOR SALE BY ALL POULTRY SUPPLY HOUSES AND DRUGGISTS.



GREEN'S FRUIT GROWER

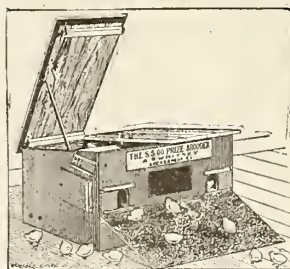
ROCHESTER, N. Y.

FOUR MONTHLY JOURNALS FOR PRICE OF ONE.

Green's Fruit Grower will be sent monthly for one year, together with a year's subscription to Farm Journal, Vick's Family Magazine, and American Poultry Advocate, all for 50 cents.

Green's Fruit Grower is authority on Garden, Vineyard, Orchard, Poultry, Health, and Home. Established 1881. Circulation 100,000. An ideal paper for the home. New presses. New styles. Regular subscription for all, \$1.75; our price 50 cents for all one year. Write for sample copy.

Green's Fruit Grower, Rochester, N. Y.



THE \$5 PRIZE BROODER

Has never been equaled for the money, and we challenge the world to produce a Brooder that will raise more chicks than the Prize Brooder. Catalogue free.

A. S. WHITNEY, Gouverneur, N. Y.

JOSEPH BRECK & SONS, Corp., Boston, Mass., Agents for New England States.

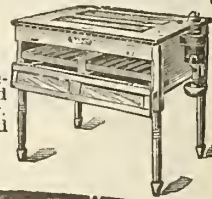
200-Egg Incubator for \$12.⁸⁰

The simplicity of the Stahl incubators created a demand that forced the production to such great proportions it is now possible to offer a first-class 200-egg incubator for \$12.80. This new incubator is an enlargement of the famous

WOODEN HEN

recognized the most perfect small hatchery. This new incubator is thoroughly well made; is a marvel of simplicity, and so perfect in its working that it hatches every fertile egg. Write for anything you want to know about incubators. Send for the now free illustrated catalogue.

GEO. H. STAHL, Quincy, Ill.



BANNER ROUP CURE

ROUP is a disease to which poultry are subject, and every precaution should be taken to prevent its spreading through the whole flock.

The BANNER ROUP CURE is guaranteed to cure ROUP and COLDS in all stages, also CANKER in Pigeons. It is very easily administered; simply put in the drinking water, and the fowls take their own medicine.

We guarantee this to cure or refund you your money. Follow directions on box and you will never lose a bird.

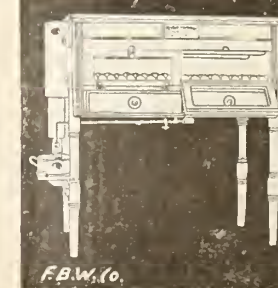
PRICES 50c. and \$1.00 per box. POSTPAID. A 50c. package makes 25 gallons, and the \$1.00 box makes 75 gallons of medicine. This is the cheapest and best ROUP CURE in the market.

Manufactured only by

EXCELSIOR WIRE and POULTRY SUPPLY CO., Dept. J.
W. V. RUSS, Prop. 26 and 28 Vesey St., NEW YORK CITY.

PETALUMA INCUBATORS

MADE BY PETALUMA INCUBATOR CO. PETALUMA, CAL.



More Sold Than All Other Makes Combined

west of the Rockies. Made in one quality only, (and that the best), in four sizes, from 54 to 324 eggs. Constructed of California Redwood, Copper Heaters, Self-Regulating, and Hot Air in principle. Has all modern equipments. Air and moisture system properly controlled. Costs less in time and fuel to operate. These machines have been made for over twenty years, and thousands of them are in successful operation. Hatches the strongest stock. Large Catalogue Free. We Pay Freight. For sale and stock carried by

Ames Plow CO., Quincy Hall, BOSTON, MASS., or 58 Beckman Street, NEW YORK CITY.